

KV-27V10/27V15

RM-Y117 RM-Y121/RM-CM101

KV-29V10C/29V10M/32V15

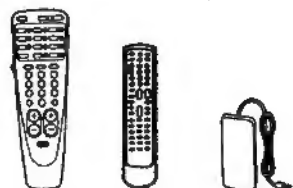
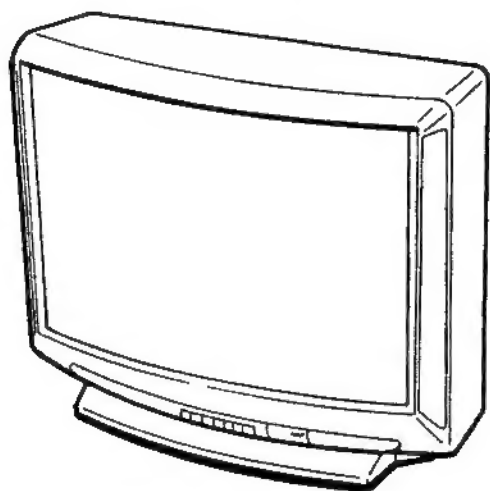
RM-Y117

RM-Y117

RM-Y121

RM-CM101

SERVICE MANUAL



RM-Y121 RM-Y117 RM-CM101

US Model

KV-27V10 Chassis No. SCC-F84Q-A

KV-27V15 Chassis No. SCC-F84R-A

KV-32V15 Chassis No. SCC-F84S-A

Canadian Model

KV-27V10 Chassis No. SCC-F85L-A

KV-27V15 Chassis No. SCC-F85M-A

KV-32V15 Chassis No. SCC-F85N-A

WP Model

KV-29V10C Chassis No. SCC-G49A-A

E Model

KV-29V10M Chassis No. SCC-F89H-A

AA-1 CHASSIS

MODELS OF THE SAME SERIES

KV-27V10/27V15	KV-27S10/27S15/29RS10
KV-29V10C/29V10M/32V15	KV-29RS15/32S10/32S15
KV-27V55/29V55M	KV-2970RS/2970M/2975M

SPECIFICATIONS

Television system
Channel coverage

American TV standards

VHF: 2-13

UHF: 14-69

CABLE TV: 1-125

Picture tube

Hi-Black™ Trinitron® tube

(KV-27V10/27V15/29V10C/29V10M)

27-inch picture measured diagonally

29-inch picture measured diagonally

(KV-32V15)

32-inch picture measured diagonally

Antenna 75-ohm external antenna terminal for VHF/UHF

- Continued on next page -



TRINITRON® COLOR TV
SONY®

Input

VIDEO and S VIDEO
S VIDEO IN
 Y: 1 Vp-p, 75-ohms unbalanced,
 sync negative
 C: 0.286 Vp-p (Burst signal),
 75-ohms
 Video: 1 Vp-p, 75-ohms
 unbalanced, sync negative
 Audio: 500 mVrms
 (100% modulation)
 Impedance: 47 kilo-ohms

Output

AUDIO OUT:
 More than 408 mVrms at the
 maximum volume setting (variable)
 More than 408 mVrms (fix)
 Impedances: 5 kilo-ohms
 (KV-27S15/29RS15/32S15)

Speaker output 5W×2
Power requirements 120 V AC, 60Hz
Power consumption

Model number	When in use	In standby mode
KV-27V10	165 W	6 W
KV-27V15	170 W	6.5 W
KV-29V10C	160 W	9 W
KV-29V10M	165 W	6 W
KV-32V15	205 W	6.5 W

Dimensions/Weight

	Dimensions (w/h/d)	Weight
KV-27V10	664×572×513 mm (26 1/4×23 5/8×20 1/4 inches)	42.9 kg (94 lbs)
KV-27V15	664×572×513 mm (26 1/4×23 5/8×20 1/4 inches)	43 kg (94 lbs 13 oz)
KV-29V10C	664×572×513 mm (26 1/4×23 5/8×20 1/4 inches)	42.9 kg (94 lbs)
KV-29V10M	664×572×513 mm (26 1/4×23 5/8×20 1/4 inches)	42.9 kg (94 lbs)
KV-32V15	801×664×603 mm (31 5/8×26 1/4×23 3/4 inches)	70 kg (154 lbs 2 oz)

Supplied accessories (KV-27V10/29V10C/29V10M)
 Remote Commander RM-Y117 (1)
 with 2 size AA (R6) batteries
 (KV-27V15/32V15)
 Remote Commander RM-Y121 (1)
 with 1 size AA (R6) battery
 RM-CM101

Optional accessories U/V mixer EAC-66
 Connecting cable
 VMC-810S/820S, VMC-720M,
 YC-15V/30V, RK-74A

Design and specifications are subject to change without notice.

(CAUTION)

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
 THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK Δ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

(ATTENTION)

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHASSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISE LORS DE TOUT DEPANNAGE.
 LE CHASSIS DE CE RECEPTEUR EST DIRECTEMENT RACCORDE A L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!

LES COMPOSANTS IDENTIFIES PAR UNE TRAME ET PAR UNE MAPQUE Δ SUR LES SCHEMAS DE PRINCIPE, LES VUES EXPLOSEES ET LES LISTES DE PIECES CONT D'UNE IMPORTANCE CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMERO DE PIECE EST INDIQUE DANS LE PRESENT MANUEL OU DANS DES SUPPLEMENTS PUBLIES PAR SONY. LES REGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT SONT IDENTIFIES DANS LE PRESENT MANUEL. SUIVRE CES PROCEDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTE.

SAFETY CHECK-OUT (US model only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer :

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any). Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate ; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground ; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

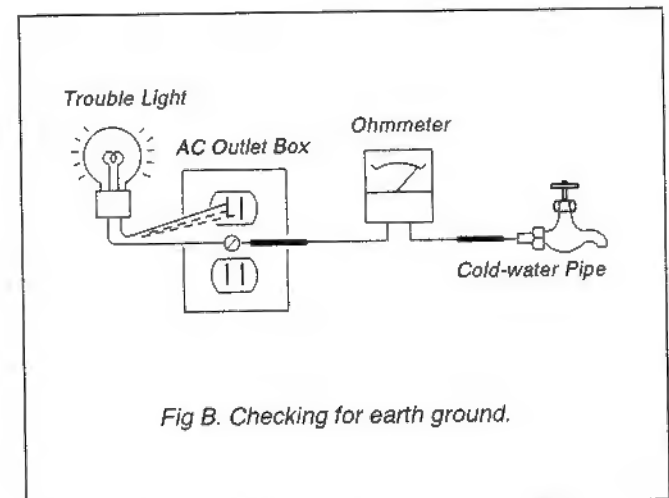
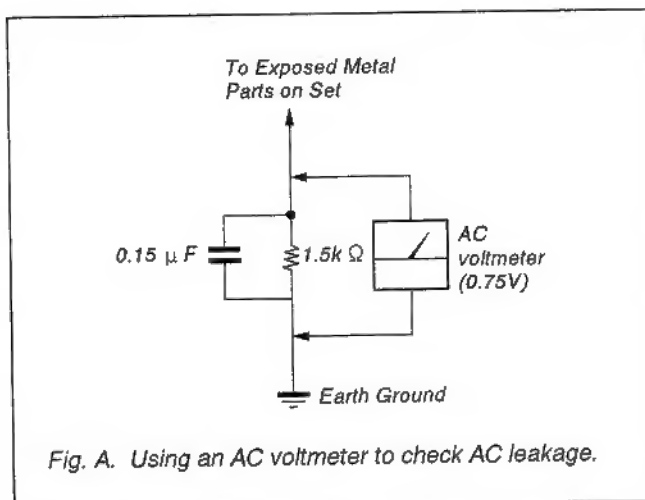


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SECTION 1 GENERAL

• KV-27V10/29V10C/29V10M

Step 1: Hookup

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

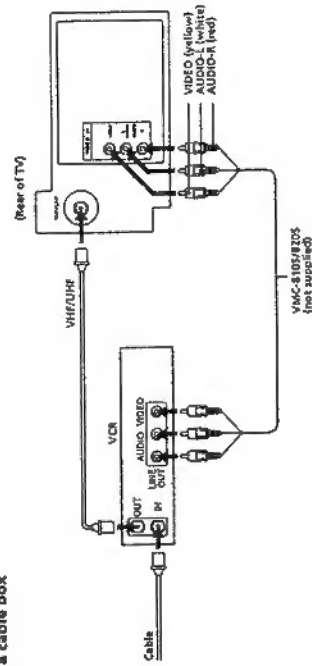
Connecting an antenna/cable TV system with a VCR

To connect your VCR to the TV, first check the model number of your TV and select the corresponding connection. For details on connection, see the instruction manual of your VCR. Before making connection, disconnect the AC power cords of the equipment to be connected.

After making these connections, you will be able to do the following:

- View the playback of video tapes
- Record one TV program while viewing another program

Without a cable box



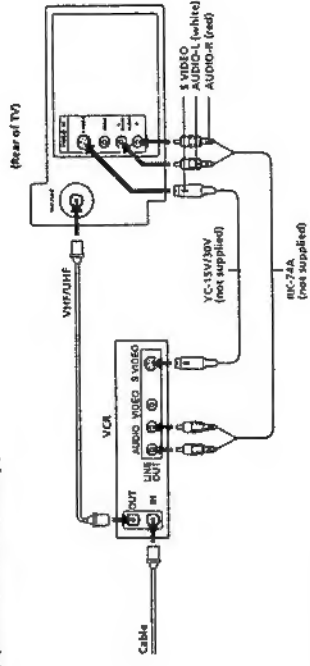
Note

- To connect a monaural VCR, connect the audio output of the VCR to AUDIO-L (mono) of VIDEO 1 IN on the TV.

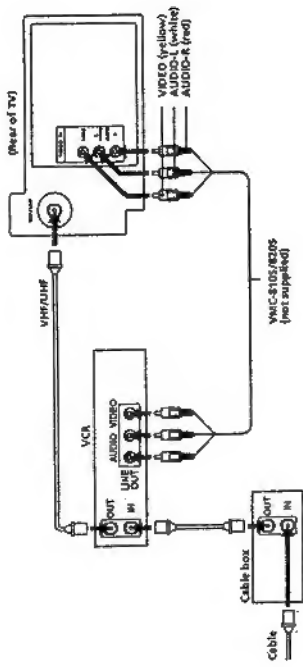
To an S video equipped VCR without a cable box

■ KV-27V10/29V10C/29V10M/225T0 only

If your VCR has an S video output jack, hook up as follows and then set S VIDEO to ON on your TV (page 12). (It is set to ON at the factory.)



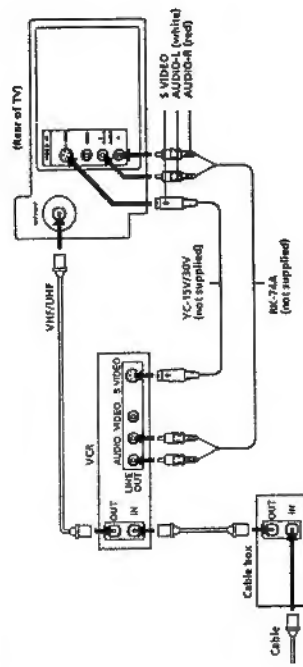
With a cable box



Note

- To connect a monaural VCR, connect the audio output of the VCR to AUDIO-L (mono) of VIDEO 1 IN on the TV.

To an S video equipped VCR with a cable box



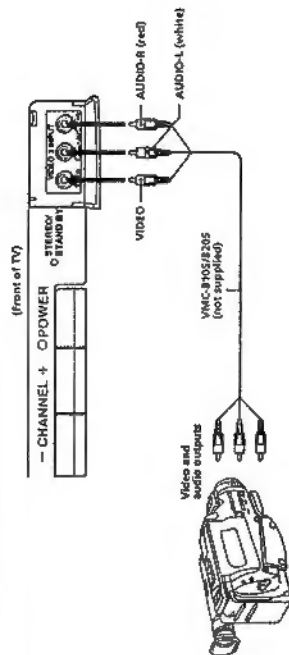
Note

- Video signals are composed of Y (luminance) and C (chroma) signals. The S video connection sends the two signals separately preventing degradation and gives better picture quality compared to conventional connection.

Connecting a camcorder

■ KV-27V10Z9V10C29V10M only

This connection is convenient for viewing a camcorder.



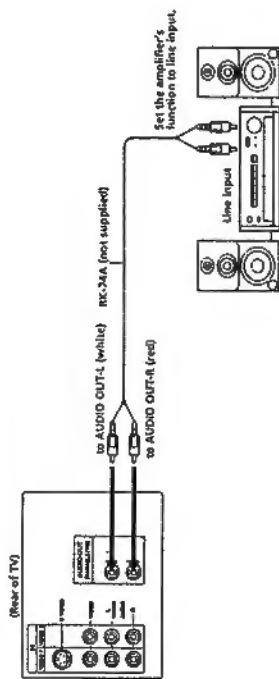
Note

• To connect a monaural camcorder, connect the audio output of the VCR to AUDIO-L (mono) or VIDEO 2 INPUT on the TV.

Connecting an audio system

■ KV-27V10Z9V10C29V10M only

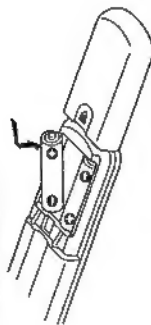
When connecting audio equipment, see page 17 and 18 for more information.



Step 2: Setting up the remote commander

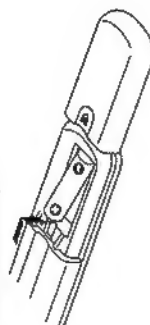
■ KV-27S10Z9S10C3ZS10
RM-Y116 remote commander

Insert two size AA (R6) batteries in correct polarity.



■ KV-27V10Z9V10C29V10M
RM-Y117 remote commander

Insert a size AA (R6) battery in correct polarity.



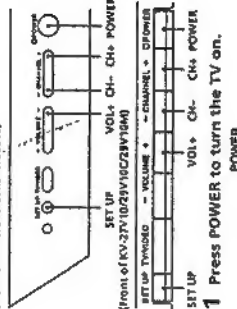
Notes

- With normal use, the battery should last for approximately six months.
- If you do not use the remote commander for an extended period of time, remove the battery to avoid possible damage from battery leakage.
- Do not handle the remote commander roughly. Do not drop it.
- Do not place the remote commander in locations where it is direct sunlight, near a heater, or where the humidity is high.

Step 3: Setting up the TV automatically (AUTO SET UP)

You can set up your TV easily by using AUTO SET UP feature. It presets all the receivable channels. To set up the TV manually, see "Setting cable TV on or off" and "Presetting channels" (page 11).
If the TV is set to a video input, you cannot execute AUTO SET UP. Press TV/VIDEO so that a channel number appears.

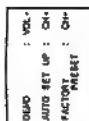
(front of KV-27S10Z9S10C3ZS10)



1 Press POWER to turn the TV on.

2 Press SET UP on the front of the TV.

The menu appears.



3 Press CH +.



"AUTO PROGRAM" appears on the screen and the TV starts scanning and presetting channels automatically. When all the receivable channels are stored, "AUTO PROGRAM" disappears and the lowest numbered channel is displayed. If the TV receives cable TV channels, CATV is set to ON automatically.

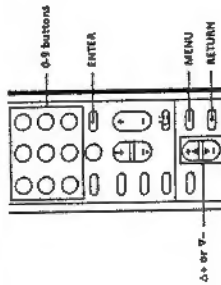
Note

- If more than 90 seconds elapse after you press a button, the menu disappears automatically.

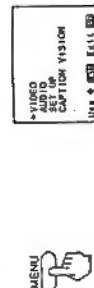
DEMO: To browse the main functions. Press VOL+ in step3. The functions and menus a displayed one by one.
FACTORY PRESET: To restore the factory settings when you are confused about the TV settings. Press CH- in step3. The settings of picture and sound are restored to the factory setting.

Erasing or adding channels

After AUTO SET UP you can erase unnecessary channels or add the channels you want. Preset channels during the day rather than late at night, when some channels may not be broadcasting.



- Press MENU.
The main menu appears.



- Press Δ or ∇ to select SET UP and press RETURN.
The SET UP menu appears.



- Press Δ or ∇ to select CH SET UP and press RETURN.
The CH SET UP menu appears.



- Press Δ or ∇ to select CH ERIASE/ADD and press RETURN.
The CH ERIASE/ADD menu appears.



- Erase and/or add the channel you want:

To erase an unwanted channel:
 (1) Make sure the cursor (\blacktriangleright) is beside ERASE.
 (2) Press CH + / - to select the channel you want to erase and,

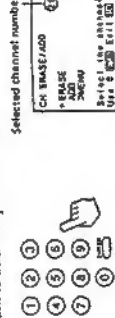


- press RETURN.
The indication "..." appears beside the channel number, showing that the channel is erased from the preset memory.



To add a channel that you want:

- Press Δ or ∇ to select ADD.
- Press the 0 - 9 buttons to select the channel you want to add and press ENTER and,



- press RETURN.
The indication "..." appears beside the channel number, showing that the channel is added to the preset memory.



- To erase and/or add other channels, repeat step 5.

- When you finish, press MENU.



Note

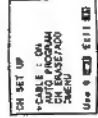
- If you erase or add a VHF or UHF channel, the cable TV channel with the same number is also erased or added, and vice versa.

Setting cable TV on or off

If you have connected the TV to a cable TV system, set CABLE to ON, the factory setting. If not, set CABLE to OFF.

You do not have to do this procedure if you execute AUTO SET UP (page 9). Do this procedure only when you want to set it manually.

- Press MENU.
- Press Δ or ∇ to move the cursor (\blacktriangleright) to SET UP and press RETURN.
- Press Δ or ∇ to move the cursor (\blacktriangleright) to CH SET UP and press RETURN.

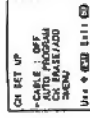


- Set CABLE to ON or OFF:

(1) Make sure the cursor (\blacktriangleright) is beside CABLE and press RETURN.

If the cursor is not beside CABLE, press Δ or ∇ to move the cursor and press RETURN.

(2) Press Δ or ∇ to select ON or OFF and, (3) press RETURN.



- Press MENU to return to the original screen.

Note

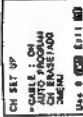
- If CH SET UP menu appears in black, the TV is set to a video input and you cannot select CABLE. Press TV/VIDEO so that a channel number appears.

Presetting channels

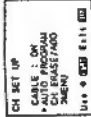
You can preset TV channels easily by AUTO PROGRAM feature.

You do not have to do this procedure if you execute AUTO SET UP (page 9). Do this procedure only when you want to set it manually.

- Press MENU.
- Press Δ or ∇ to move the cursor (\blacktriangleright) to SET UP and press RETURN.
- Press Δ or ∇ to move the cursor (\blacktriangleright) to CH SET UP and press RETURN.



- Press Δ or ∇ to move the cursor (\blacktriangleright) to AUTO PROGRAM and press RETURN.



"AUTO PROGRAM" appears on the screen and the TV starts scanning and presetting channels automatically. When all the receivable channels are stored, "AUTO PROGRAM" disappears and the lowest numbered channel is displayed.

- Press MENU to return to the original screen.

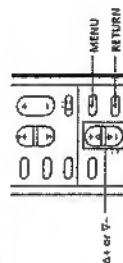
Note

- If the CH SET UP menu appears in black, the TV is set to a video input and you cannot select AUTO PROGRAM. Press TV/VIDEO or TV so that a channel number appears.

Changing the menu language

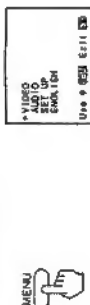
■ KV-29RS1029V10C29V10M only

If you prefer Spanish to English, you can change the menu language.



1 Press MENU.

The main menu appears.



2 Press Δ or ∇ to move the cursor (\blacktriangleright) to ENGLISH and press RETURN.



3 Press Δ or ∇ to select ESPAÑOL and press RETURN.



4 Press MENU to return to the original screen.

Note
• Certain parts of the ESPAÑOL menus remain in English.

Setting S video on or off

■ KV-27V1029V10C29V10M132S10 only

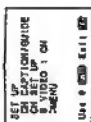
You can change the S VIDEO menu to ON or OFF.

1 Press TV/VIDEO select VIDEO 1.

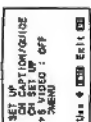
2 Press MENU.

3 Press Δ or ∇ to move the cursor (\blacktriangleright) to SET UP and press RETURN.

4 Press Δ or ∇ to move the cursor (\blacktriangleright) to S VIDEO and press RETURN.



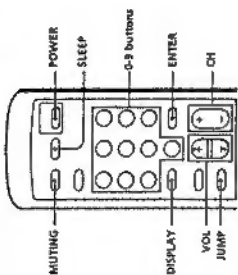
5 Press Δ or ∇ to select ON or OFF and press RETURN.



6 Press MENU to return to the original screen.

Note
• If S VIDEO appears in black, set a video input to VIDEO 1.
• If you set S VIDEO to ON, the TV automatically receives S video signals whenever a VCR with S video is connected.

Watching the TV



1 Press POWER to turn the TV on.



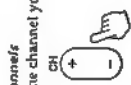
If "VIDEO" appears on the screen, press the TV/VIDEO button so that a channel number appears.

2 Select the channel you want:
To select a channel directly
Press the 0-9 buttons and then press ENTER.

The channel can also be selected without pressing ENTER.



To scan through channels/
Press CH \pm until the channel you want appears.



3 Press VOL \pm to adjust the volume.



Note
• Set the CABLE BOX/TV selector to TV.
(KV-27V1029V10C29V10M only)

Switching quickly between two channels

Press JUMP.
The channel you watched previously appears.



Pressing JUMP again switches back the channel.

Muting the sound

Press MUTE.
"MUTING" appears on the screen.



To restore the sound, press MUTE again, or press VOL \pm .

Displaying on-screen information

Use this feature to check the channel number, channel caption (if set), and MTS mode (if SAP is selected).
Press DISPLAY.



To cancel the display, press DISPLAY again.

Setting the Sleep Timer

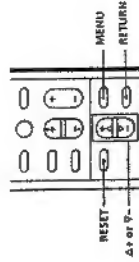
The TV stays on for the length of time you specify and then shuts off automatically.
Press SLEEP repeatedly until the time (minutes) you want appears.
Each time you press SLEEP, the time changes as follows: 30 \rightarrow 60 \rightarrow 90 \rightarrow OFF.



To cancel the Sleep Timer, press SLEEP repeatedly until "SLEEP OFF" appears, or turn the TV off.

Adjusting the picture (VIDEO)

When watching TV programs, you can adjust the quality of the picture to suit your taste. You can adjust the picture of video input(s) as well. These settings are stored separately from those for the TV picture.



- 1 Press MENU.
- 2 Make sure the cursor (▸) is beside VIDEO and press RETURN.



- 3 Select the item you want to adjust.
For example:
(1) To adjust brightness, press Δ+ or ∇- to select BRIGHT and,



- (2) press RETURN.



- 4 Adjust the selected item:
(1) Press Δ+ or ∇- to adjust the item and,



- (2) press RETURN.
The new setting appears in the VIDEO menu.



For details on each item, see "Description of adjustable items" below.

- 5 To adjust other items, repeat steps 3 and 4.

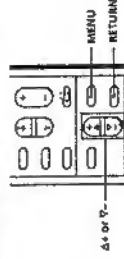
Description of adjustable items	
Item	Press Δ+ to
PICTURE	Increase picture contrast and give soft vivid color
HUE	Make skin tones become greenish
COLOR	Increase color intensity
BRIGHT	Brighten the picture
SHARP	Sharpen the picture
	Decrease picture contrast and give soft color
	Make skin tones become purplish
	Decrease color intensity
	Darken the picture
	Soften the picture

To restore the factory settings
Press RESET while the VIDEO menu is displayed.
All the settings are restored to the factory settings.

Adjusting screen brightness automatically (LUMISPONDER)

■ KV-27V10/29V10CZ29V10M only

The LUMISPONDER feature adjusts the brightness of the screen automatically according to the ambient brightness. The LUMISPONDER function automatically adjusts the level set by the user in the VIDEO menu to the standard.



- 1 Press MENU.
- 2 Press Δ+ or ∇- to select VIDEO and press RETURN.

- 3 Press Δ+ or ∇- to select LUMISPONDER and press RETURN.



- 4 Press Δ+ or ∇- to select ON or OFF and press RETURN.

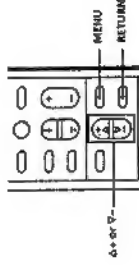


- (2) press RETURN.



Adjusting the sound (AUDIO)

You can adjust the quality of the sound to suit your taste. You can adjust the sound of video input(s) as well. These settings are stored separately from those for the TV sound.



- 1 Press MENU.
- 2 Press Δ+ or ∇- to select AUDIO and press RETURN.



- 3 Select the item you want to adjust.
For example:
(1) To adjust bass, press Δ+ or ∇- to select BASS and,



- (2) press RETURN.



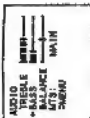
4 Adjust the selected item:

- (1) Press Δ or ∇ to adjust the item and,



(2) press RETURN.

The new setting appears in the AUDIO menu.



For details on each item, see "Description of adjustable items" below.

5 To adjust other items, repeat steps 3 and 4 above.

Description of adjustable items

Item	Press Δ to	Press ∇ to
TREBLE	Increase the treble response	Decrease the treble response
BASS	Increase the bass response	Decrease the bass response
BALANCE	Emphasize the right speaker's volume	Emphasize the left speaker's volume

To restore the factory settings

Press RESET while the AUDIO menu is displayed.

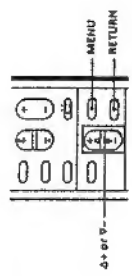
Note

- When SPEAKER (page 17) is OFF and AUDIO OUT (page 18) is FIXED condition, sound menu appears mid-level setting and it cannot be adjusted.

Listening to surround sound (SURROUND)

KV-27V1029V10C129V10M only

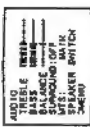
SURROUND feature simulate sound reproduction with the atmosphere of a movie theater on a concert hall. Surround sound is only effective for stereo programs.



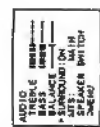
1 Press MENU.

2 Press Δ or ∇ to select AUDIO and press RETURN.

3 Press Δ or ∇ to select SURROUND and press RETURN.

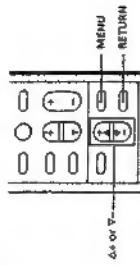


4 Press Δ or ∇ to select ON and press RETURN.



Selecting stereo or bilingual programs (MTS)

The Multichannel TV Sound (MTS) feature allows you to enjoy stereo sound in Second Audio Programs (SAP) at your choice. The initial setting is stereo sound (MAIN).



1 Press MENU.

2 Press Δ or ∇ to select AUDIO and press RETURN.

3 Press Δ or ∇ to select MTS and press RETURN.



4 Press Δ or ∇ to select MAIN, SAP, or MONO and press RETURN.



Choose	To
MAIN	Listen to stereo sound. The STEREO indicator on the TV lights up while a stereo broadcast is received.
SAP	Listen to bilingual programs. The sound of non-SAP programs will be muted when SAP is selected.
MONO	Reduce noise during stereo broadcasts.

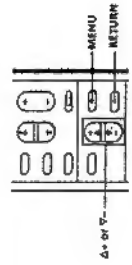
Note

- Stereo and SAP sounds are subject to program sources.

Setting the speaker switch (SPEAKER)

KV-27V1029V10C129V10M only

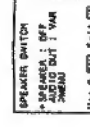
You may switch off the TV speakers when, for example, you want to listen to the sound through a stereo system.



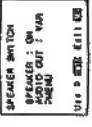
1 Press MENU.

2 Press Δ or ∇ to select AUDIO and press RETURN.

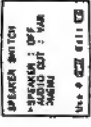
3 Press Δ or ∇ to select SPEAKER SWITCH and press RETURN.



4 Make sure the cursor (>) is beside SPEAKER and press RETURN.



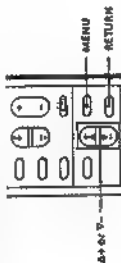
5 Press Δ or ∇ to select ON or OFF and press RETURN.



Setting audio out (AUDIO OUT)

■ KV-27V102BV/10C/2SV10M only

You can select audio out to variable or fixed when SPEAKER is set to OFF. Audio out is variable when SPEAKER is set to ON.



- 1 Press MENU.
- 2 Press Δ or ∇ to select AUDIO and press RETURN.
- 3 Press Δ or ∇ to select SPEAKER SWITCH and press RETURN.



- 4 Press Δ or ∇ to select AUDIO OUT and press RETURN.



- 5 Press Δ or ∇ to select VAR or FIXED and press RETURN.



VAR: Sound output varied according to the TV settings. You can adjust the volume, bass, treble and balance.

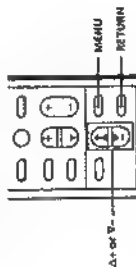
FIXED: Sound output is always fixed to a certain level.

You cannot adjust the volume.

Customizing the channel number buttons (CH CAPTION/GUIDE)

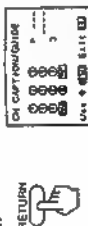
You can choose up to 12 channels, caption each channel, and assign a specific channel number button to each channel. This feature allows you to select your favorite channels easily by name. For example, you can name channel 20 "ESPN," and assign the channel number 4 button to it.

Setting captions to favorite channels



- 1 Press TV/VIDEO to select TV mode.
- 2 Press MENU.
- 3 Press Δ or ∇ to select SET UP and press RETURN.

- 4 Press Δ or ∇ to select CH CAPTION/GUIDE and press RETURN.



- 5 Press RETURN again.



- 6 Press Δ or ∇ to select a channel guide number button and press RETURN. Each time you press Δ or ∇ , the channel numbers change to red in turns. The channel number button you select will be the one you press to call up your favorite channel.

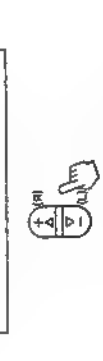


- 7 Press Δ or ∇ to select the channel that you want to caption and press RETURN.

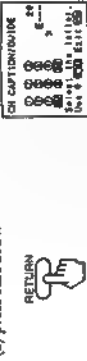


- 8 Enter the letters (up to four) to caption the channel:

(1) Press Δ or ∇ to select the first letter. Each time you press Δ or ∇ , the letter changes as shown below and,



- (2) press RETURN.



- (3) Repeat steps (1) and (2) to select the remaining letters and press RETURN.



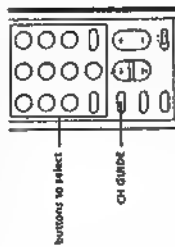
- 9 Repeat step 5 to 8 to caption other channels.

To erase a caption Press RESET after step 5.

Notes

- The position number you already selected appears in yellow.
- If the CH CAPTION/GUIDE menu appears in black, the TV is set to a video input and you cannot select CH CAPTION/GUIDE.
- Press TV/VIDEO to select TV mode.
- If more than 90 seconds elapse after you press a button, the menu disappears automatically.

Selecting a captioned channel



- 1 Press CH GUIDE. The CHANNEL GUIDE menu appears showing channel captions and the corresponding channel number buttons.



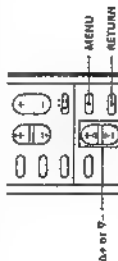
- 2 Press a channel number button, the DISPLAY or ENTER button to select the channel you want.

To cancel the CHANNEL GUIDE menu Press CH GUIDE again.

Setting video labels (VIDEO LABEL)

■ KV-27V1029V10C29V10M only

This feature allows you to label each input mode so that you can easily identify the connected equipment. For example, you can label VIDEO 1 IN as VHS.



- 1 Press MENU.
- 2 Press Δ or ∇ to select SET UP and press RETURN.
- 3 Press Δ or ∇ to select VIDEO LABEL and press RETURN.



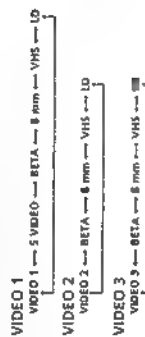
- 4 Press Δ or ∇ to select the input mode you want to label and press RETURN.



- 5 Press Δ or ∇ to select the label and press RETURN.



Each time you press Δ or ∇ , the label changes as shown below.



- 6 Repeat steps 4 and 5 to label other input modes.

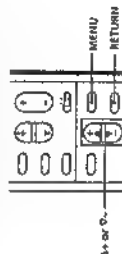
Note

- If more than 90 seconds elapse after you press a button, the menu disappear automatically.

Displaying Caption Vision (CAPTION VISION)

■ KV-27S1027V10E32S10 only

Some source programs provide with Caption Vision (Closed Caption). To display Caption Vision, select either CC1, CC2, TEXT1, or TEXT2 from the menu. CC1 or CC2 shows you a caption, that is a printed version of the dialog in sound effects of a program. (The mode should be set to CC1 for most programs.) TEXT1 or TEXT2 shows you text, that is information presented using half to full of the screen. It is not usually related to the program.



- 1 Press MENU.
- 2 Press Δ or ∇ to select CAPTION VISION and press RETURN.



- 3 Press Δ or ∇ to select the caption type and press RETURN.



Note

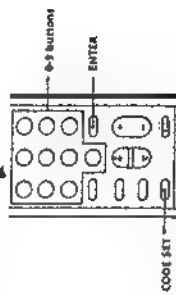
- Captions may appear with a white box or another error instead of a certain word. Poor reception of TV programs can also cause errors in Caption Vision.

Operating video equipment

■ KV-27V1029V10C29V10M only

You can operate video equipment that has an infrared remote sensor with the supplied remote commander. For the operations, set the manufacturer's code number.

Setting the manufacturer's code



While pressing CODE SET, press 0-9 to enter the manufacturer's code number (see the chart on the next page). For example, to operate a Sony 8 mm VCR, press 0, 2 and ENTER.



The code numbers for Sony equipment are assigned as follows:

- 01 Beta, ED Beta VCR
- 02 8 mm VCR
- 03 VHS VCR (factory setting)
- 04 MDP

● KV-27V15/32V15

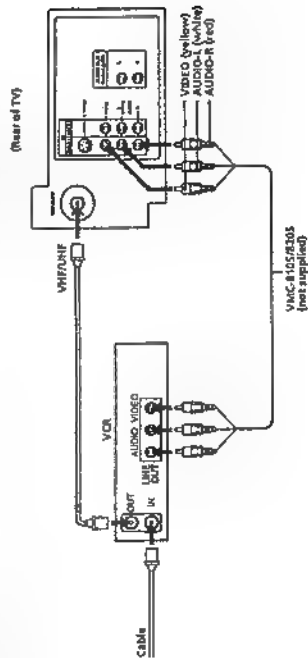
Step 1: Hookup

Connecting an antenna/cable TV system with a VCR

To connect your VCR to the TV, first check the model number of your TV and select the corresponding connection. For details on connection, see the instruction manual of your VCR. Before making connection, disconnect the AC power cords of the equipment to be connected.

Without a cable box

- After making these connections, you will be able to do the following:
- View the playback of video tapes
 - Record one TV program while viewing another Program
 - Watch two TV programs at once using a window Picture (Picture \equiv Picture)

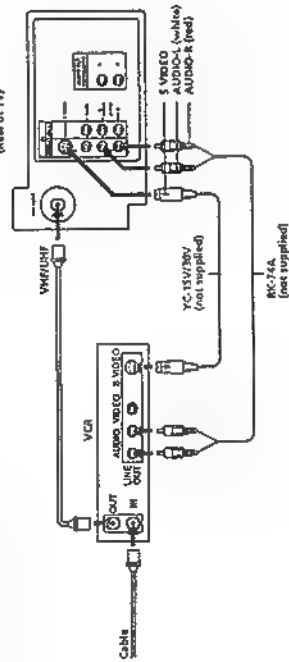


Note

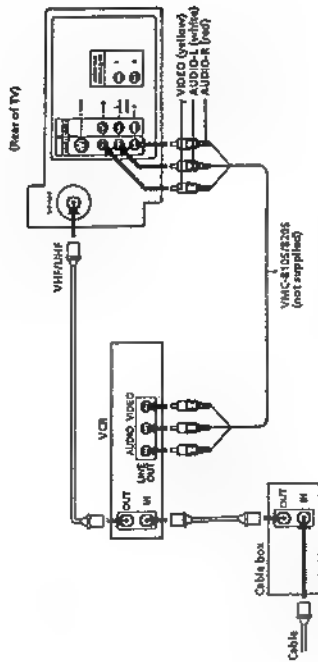
- To connect a modular VCR, connect the audio output of the VCR to AUDIO-L (mono) of VIDEO 1 IN on the TV.

To an S video equipped VCR without a cable box

If your VCR has an S video output jack, hook up as follows and then set S VIDEO to ON on your TV (page 12). It is set to ON at the factory.



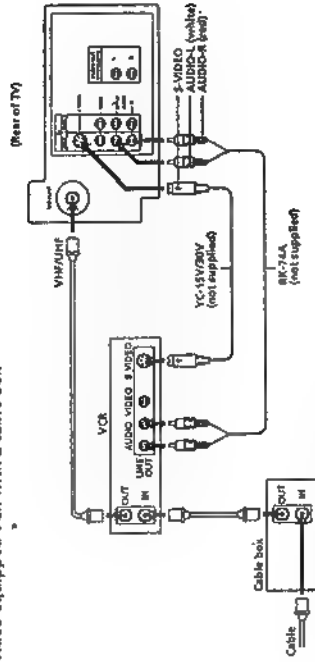
With a cable box



Note

- To connect a modular VCR, connect the audio output of the VCR to AUDIO-L (mono) of VIDEO 1 IN on the TV.

To an S video equipped VCR with a cable box



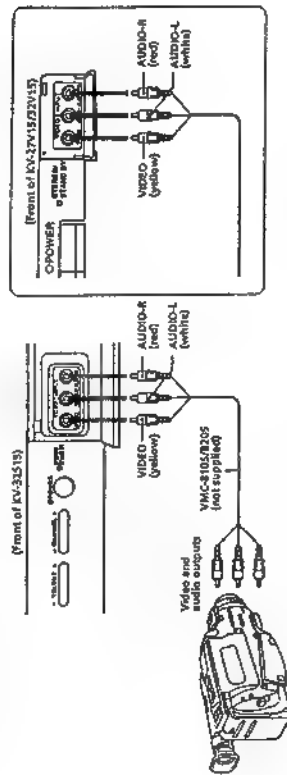
Note

- Video signals are composed of Y (luminance) and C (chroma) signals. The S connection sends the two signals separately preventing degradation, and gives better picture quality compared to conventional connection.

Connecting a camcorder

■ KV-27V1532S1532V15 only

This connection is convenient for viewing a camcorder.

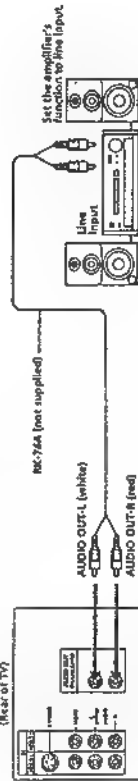


Note

- To connect a monaural camcorder, connect the audio output of the VCR to AUDIO-L (mono) or VIDEO 2 INPUT on the TV.

Connecting an audio system

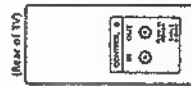
When connecting audio equipment, see page 20 for more information.



Connecting other Sony equipment with CONTROL 5 jack

■ KV-27V1532V15 only

Connect the supplied cable box controller (Cable Mouse) to the CONTROL 5 OUT jack. Refer to the Cable Mouse's manual for details on the connection.



- Make the following connections to control the TV and connected equipment with one remote commander.
- To control other Sony equipment with the TV's remote commander, connect the input of the equipment to CONTROL 5 OUT jack on the TV.
 - To control the TV with the remote commander of other Sony equipment, connect the output of the equipment to CONTROL 5 IN jack on the TV.

Step 2: Setting up the remote commander

Insert one size AA (R6) battery (supplied) by matching the + and - on the battery to the diagram inside the battery compartment.



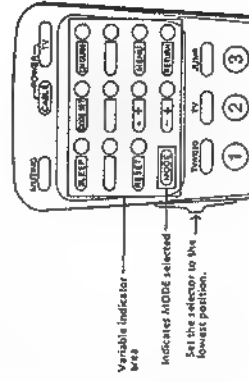
Notes

- With normal use, the battery should last for approximately six months.
- If you do not use the remote commander for an extended period of time, remove the battery to avoid possible damage from battery leakage.
- Do not handle the remote commander roughly. Do not drop it, step on it or let it get wet.
- Do not place the remote commander in direct sunlight, near a heater, or where the humidity is high.

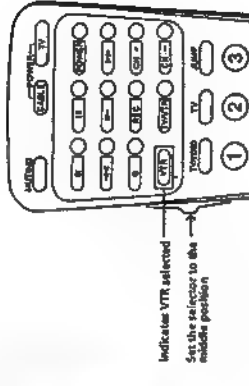
Using the remote commander

The upper half of the remote commander has three selectable operation modes. Each button in this area has three different functions. You can select the mode by sliding a selector on the left side.

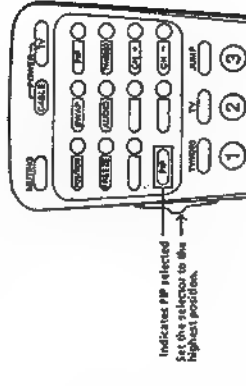
For normal TV viewing



For operating video equipment



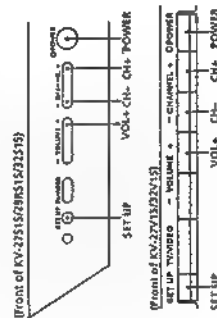
For using the Picture-in-Picture feature



Step 3: Setting up the TV automatically (AUTO SETUP)

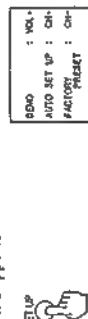
For cable box control (Cable Mouse) users (KV-27V15/32V15 only)
Refer to the supplied manual of Cable Mouse on how to set up your TV.

You can set up your TV easily by using AUTO SET UP feature. It presets all the receivable channels. To set up the TV manually, see "Setting cable TV on or off" (page 12) and "Presetting channels" (page 12). If the TV is set to a video input, you cannot execute AUTO SET UP. Press TV/VIDEO or TV so that a channel number appears.



1 Press POWER to turn the TV on.

2 Press SET UP on the front of the TV. The menu appears.



3 Press CH +.



"AUTO PROGRAM" appears on the screen and the TV starts scanning and presetting channels automatically. When all the receivable channels are stored, "AUTO PROGRAM" disappears and the lowest numbered channel is displayed. If the TV receives cable TV channels, CATV is set to ON automatically.

Note

- If more than 30 seconds elapse after you press a button, the menu disappears automatically.

DEMO: To browse the main functions.

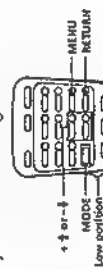
Press VOL + in step 3. The functions and menus are displayed one by one.

FACTORY PRESET: To restore the factory settings

when you are confused about the TV settings. Press CH- in step 3. The settings of picture and sound are restored to the factory setting.

Erasing or adding channels

After AUTO SET UP, you can erase unnecessary channels or add the channels you want. Preset channels during the day rather than late at night, when some channels may not be broadcasting.



1 Press MENU.

The main menu appears.



(continued)

2 Press + or - to move the cursor (P) to SET UP and press RETURN. The SET UP menu appears.



3 Press + or - to move the cursor (P) to CH SET UP and press RETURN. The CH SET UP menu appears.

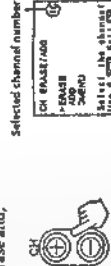


4 Press + or - to move the cursor (P) to CH ERASE/ADD and press RETURN. The CH ERASE/ADD menu appears.



5 Erase and/or add the channel you want:

- Make sure the cursor (P) is beside ERASE.
- Press CH +/- to select the channel you want to erase and,



(3) press RETURN. The indication "-" appears beside the channel number, showing that the channel is erased from the preset memory.



To add a channel that you want

- Press + or - to move the cursor (P) to ADD.
- Press the 0-9 buttons to select the channel you want to add and press ENTER and,



(3) press RETURN.

The indication "+" appears beside the channel number, showing that the channel is added to the preset memory.



6 To erase and/or add other channels, repeat step 5.

7 When you finish, press MENU.



Note

- If you erase or add a VHF or UHF channel, the cable TV channel with the same number is also erased or added, and vice versa.

Setting cable TV on or off

For Cable Box Control (Cable Mouse) Users (KV-27V-5322 VHS only)
Refer to the supplied manual of Cable Mouse on how to set cable TV.

If you have connected the TV to a cable TV system, set CABLE to ON, the factory setting. If not, set CABLE to OFF.
You do not have to do this procedure if you execute AUTO SET UP (page 10). Do this procedure only when you want to set it manually.

- 1 Press MENU.
- 2 Press \uparrow or \downarrow to move the cursor (\blacktriangleright) to SET UP and press RETURN.
- 3 Press \uparrow or \downarrow to move the cursor (\blacktriangleright) to CH SET UP and press RETURN.

CH SET UP
CABLE : ON
AUTO PROGRAM : ON
CH BASE/ADD : 50MHz
[Exit] [Exit]

- 4 Set CABLE to ON or OFF:

- (1) Make sure the cursor (\blacktriangleright) is beside CABLE and press RETURN.
If the cursor is not beside CABLE, press \uparrow or \downarrow to move the cursor and press RETURN.
- (2) Press \uparrow or \downarrow to select ON or OFF and, press RETURN.

CH SET UP
CABLE : OFF
AUTO PROGRAM : ON
CH BASE/ADD : 50MHz
[Exit] [Exit]

- 5 Press MENU to return to the original screen.

Note
If CH SET UP appears in black, the TV is set to a video input and you cannot select CABLE. Press TV/VIDEO or TV so that a channel number appears.

Presetting channels

For Cable Box Control (Cable Mouse) Users (KV-27V-5322 VHS only)
Refer to the supplied manual of Cable Mouse on how to preset channels.

You can preset TV channels easily by AUTO PROGRAM feature.
You do not have to do this procedure if you execute AUTO SET UP (page 10). Do this procedure only when you want to set it manually.

- 1 Press MENU.
- 2 Press \uparrow or \downarrow to move the cursor (\blacktriangleright) to SET UP and press RETURN.
- 3 Press \uparrow or \downarrow to move the cursor (\blacktriangleright) to CH SET UP and press RETURN.

CH SET UP
CABLE : ON
AUTO PROGRAM : ON
CH BASE/ADD : 50MHz
[Exit] [Exit]

- 4 Press \uparrow or \downarrow to move the cursor (\blacktriangleright) to AUTO PROGRAM and press RETURN.

CH SET UP
CABLE : ON
AUTO PROGRAM : ON
CH BASE/ADD : 50MHz
[Exit] [Exit]

"AUTO PROGRAM" appears on the screen and the TV starts scanning and presetting channels automatically. When all the receivable channels are stored, "AUTO PROGRAM" disappears and the lowest numbered channel is displayed.

- 5 Press MENU to return to the original screen.

Note
If the CH SET UP menu appears in black, the TV is set to a video input and you cannot select AUTO PROGRAM. Press TV/VIDEO or TV so that a channel number appears.

Setting video on or off

You can change the S VIDEO menu to ON or OFF.

- 1 Press TV/VIDEO to select VIDEO 1.
- 2 Press MENU.
- 3 Press \uparrow or \downarrow to move the cursor (\blacktriangleright) to SET UP and press RETURN.
- 4 Press \uparrow or \downarrow to move the cursor (\blacktriangleright) to S VIDEO and press RETURN.

SET UP
CAPTION/OUTLINE : ON
CH SET UP : 50MHz
[Exit] [Exit]

- 5 Press \uparrow or \downarrow to select ON or OFF and press RETURN.

SET UP
CAPTION/OUTLINE : ON
CH SET UP : 50MHz
S VIDEO : OFF
[Exit] [Exit]

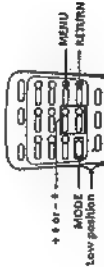
- 6 Press MENU to return to the original screen.

Notes
• If S VIDEO appears in black, set a video input to VIDEO 1.
• If you set VIDEO to ON, the TV automatically receive S video signals whenever a VCR with S Video is connected.

Changing the menu language

KV-29RS15 only

If you prefer Spanish to English, you can change the menu language.



- 1 Press MENU.

The main menu appears.

VIDEO
SET UP
BACK 15H
[Exit] [Exit]

- 2 Press \uparrow or \downarrow to move the cursor (\blacktriangleright) to ENGLISH and press RETURN.

VIDEO
SET UP
BACK 15H
[Exit] [Exit]

- 3 Press \uparrow or \downarrow to select ESPAÑOL and press RETURN.

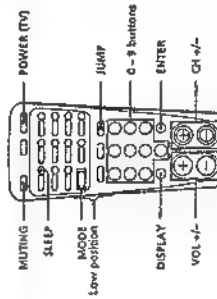
VIDEO
SET UP
BACK 15H
[Exit] [Exit]

- 4 Press MENU to return to the original screen.

Note
• Certain parts of the ESPAÑOL menus remain in English.



For cable box control, Cable Mouse users (KY-27U15/21V15 only)
Refer to the supplied manual of Cable Mouse on how to watch the TV using the cable box control.



1 Press POWER (TV) to turn the TV on.



If "VIDEO" appears on the screen, press the TV / VIDEO or TV button so that a channel number appears.

2 Select the channel you want:
To select a channel directly
Press the 0-9 buttons and then press ENTER.



The channel can also be selected without pressing ENTER.

To scan through channels
Press CH +/- until the channel you want appears.



3 Press VOL +/- to adjust the volume.



Note

• Set the CABLE BOX/TV selector to TV.

Switching quickly between two channels

Press JUMP.

The channel you watched previously appears.



Pressing JUMP again switches back the channel.

Muting the sound

Press MUTE.

"MUTING" appears on the screen.



To restore the sound, press MUTE again, or press VOL +/-.

Displaying on-screen information

Use this feature to check the channel number, channel caption (if set), and MTS mode (if SAP is selected). Press DISPLAY.



To cancel the display, press DISPLAY again.

Setting the Sleep Timer

The TV stays on for the length of time you specify and then shuts off automatically.

Press SLEEP repeatedly until the time (minutes) you want appears.

Each time you press SLEEP, the time changes as follows: 30 → 60 → 90 → OFF.



To cancel the Sleep Timer, press SLEEP repeatedly until "SLEEP OFF" appears, or turn the TV off.

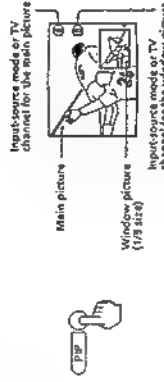
Watching two programs at a time — PIP

The Picture-In-Picture (PIP) feature allows you to watch both the main picture and a window picture simultaneously.
You can watch two TV channels at a time with this feature. See "Connecting an antenna/cable TV system with a VCR" (page 6) for connections.



Displaying a window picture

Press PIP.



Press PIP again to display a smaller window picture.



To remove the window picture, press PIP again.

Notes

- If the main picture is not receiving an image, the window picture may be in black and white.
- The window picture may be affected by the condition of the main picture.
- The window picture sound is also output from the VARIABLE/FIX AUDIO OUT jacks when you listen to it.

Changing the window picture input mode

Press TV/VIDEO in the PIP control area to select the input mode.
Each time you press TV/VIDEO, "TV", "VIDEO 1", "VIDEO 2", and "VIDEO 3 (except for KY-27U15/29U15)" appear in sequence.



A window picture will appear in the same input mode as the last time you used PIP.

Listening to the sound of the window picture

Press AUDIO.

The A display appears for a few seconds, indicating that the window picture sound is being received.



To restore the main picture sound, press AUDIO again.

Changing TV channels in the window picture

Press CH +/- in the PIP control area.



Changing the position of the window picture

Press POSITION.

Each time you press POSITION, the window picture will move counterclockwise on the screen.



Freezing the window picture

This feature is useful when you want to write down a recipe from a cooking program, a displayed address or a phone number and so on.

Press FREEZE.

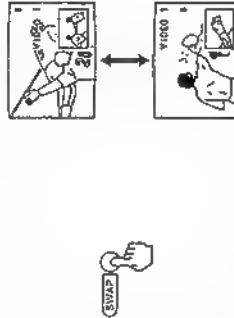


To restore the normal screen, press FREEZE again.

Swapping the main and window pictures

Press SWAP.

Each time you press SWAP, the images from the main and window pictures switch places along with the sound.

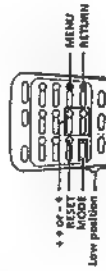


Note

The channels being received through the AUX jack cannot be displayed as a window picture (RV-32V15 only).

Adjusting the picture (video)

When watching TV programs, you can adjust the quality of the picture to suit your taste. You can adjust the picture of video input(s) as well. These settings are stored separately from those for the TV picture.



1 Press MENU.

2 Make sure the cursor (P) is beside VIDEO and press RETURN.



3 Select the item you want to adjust.

For example:
(1) To adjust brightness, press + or - to select BRIGHT and,



(2) press RETURN.



4 Adjust the selected item:

(1) Press + or - to adjust the item and,



(2) press RETURN.

The new setting appears in the VIDEO menu.



For details on each item, see "Description of adjustable items" below.

5 To adjust other items, repeat steps 3 and 4.

Description of adjustable items

Item	Press + or - to	Press - or + to
PICTURE	Increase picture contrast and give vivid color	Decrease picture contrast and give soft color
HUE	Make skin tones become greenish	Make skin tones become purplish
COLOR	Increase color intensity	Decrease color intensity
BRIGHT	Brighten the picture	Darken the picture
SHARP	Sharpen the picture	Soften the picture

To restore the factory settings

Press RESET while the VIDEO menu is displayed. All the settings are restored to the factory settings.

Adjusting screen brightness automatically (LUMISPONDER)

RV-32V15/32V15 only

The LUMISPONDER feature adjusts the brightness of the screen automatically according to the ambient brightness. The LUMISPONDER function automatically adjusts the level set by the user in the VIDEO menu to the standard.



1 Press MENU.

2 Press + or - to select VIDEO and press RETURN.

3 Press + or - to select LUMISPONDER and press RETURN.

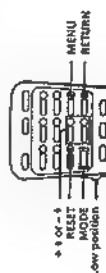


4 Press + or - to select ON or OFF and press RETURN.

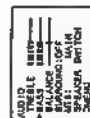
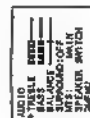


Adjusting the sound (AUDIO)

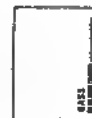
You can adjust the quality of the TV sound to suit your taste.
You can adjust the sound of video input(s) as well. These settings are stored separately from those for the TV sound.



- 1 Press MENU.
- 2 Press + or - to select AUDIO and press RETURN.
- 3 Select the item you want to adjust.
For example:
(1) To adjust bass, press + or - to select BASS and,



- (2) press RETURN.



- 4 Adjust the selected item:
(1) Press + or - to adjust the item and,
(2) press RETURN.
The new setting appears in the AUDIO menu.



For details on each item, see "Description of adjustable items" below.

- 5 To adjust other items, repeat steps 3 and 4 above.

Description of adjustable items	
Item	Press + or - to
TREBLE	Increase the treble response
BASS	Increase the bass response
BALANCE	Emphasize the left speaker's volume
SURROUND	Emphasize the right speaker's volume

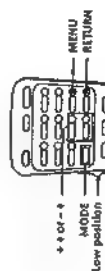
To restore the factory settings
Press RESET while the AUDIO menu is displayed.

Note

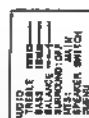
- When SPEAKER (page 20) is OFF and AUDIO OUT (page 20) is FIXED condition, the sound is set to mid-level and it cannot be adjusted.

Listening to surround sound (SURROUND)

SURROUND feature simulates sound reproduction with the atmosphere of a movie theater or a concert hall. Surround sound is only effective for stereo programs.



- 1 Press MENU.
- 2 Press + or - to select AUDIO and press RETURN.
- 3 Press + or - to select SURROUND and press RETURN.

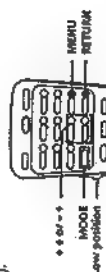


- 4 Press + or - to select ON and press RETURN.

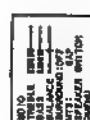


Selecting stereo or bilingual programs (MTS)

The Multichannel TV Sound (MTS) feature allows you to enjoy stereo sound or Second Audio Programs (SAP) at your choice. The initial setting is stereo sound (MAIN).



- 1 Press MENU.
- 2 Press + or - to select AUDIO and press RETURN.
- 3 Press + or - to select MTS and press RETURN.
- 4 Press + or - to select MAIN, SAP, or MONO and press RETURN.

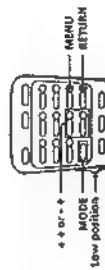


Choose	To
MAIN	Listen to stereo sound. The STEREO indicator on the TV lights up while a stereo broadcast is received.
SAP	Listen to bilingual programs. The sound of non-SAP programs will be muted when SAP is selected.
MONO	Reduce noise during stereo broadcast.

Note
Stereo and SAP sounds are subject to program sources.

Setting the speaker switch (SPEAKER)

You may switch off the TV speakers when, for example, you want to listen to the sound through a stereo system.



- 1 Press MENU.
- 2 Press + or - to select AUDIO and press RETURN.

- 3 Press + or - to select SPEAKER SWITCH and press RETURN.



- 4 Make sure the cursor (P) is beside SPEAKER and press RETURN.

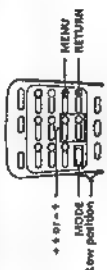


- 5 Press + or - to select ON or OFF and press RETURN.



Setting audio out (AUDIO OUT)

You can select audio out to variable or fixed when SPEAKER is set to OFF. Audio out is variable when SPEAKER is set to ON.



- 1 Press MENU.
- 2 Press + or - to select AUDIO and press RETURN.

- 3 Press + or - to select SPEAKER SWITCH and press RETURN.



- 4 Press + or - to select AUDIO OUT and press RETURN.



- 5 Press + or - to select VAR or FIXED and press RETURN.



VAR: Sound output varied according to the TV settings. You can adjust the volume, bass, treble and balance.

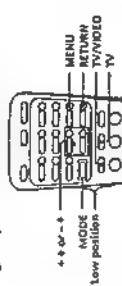
FIXED: Sound output is always fixed to a certain level. You cannot adjust the volume.

Customizing the channel number buttons (CH CAPTION/GUIDE)

For Cable box control (Cable Mouse) users (V14/V15/V16/V17 only)
Using the setting of Cable Mouse before customizing the channel number buttons.

You can choose up to 12 channels, caption each channel, and assign a specific channel number button to each channel. This feature allows you to select your favorite channels easily by name. For example, you can name channel 20 "ESPN" and assign the channel number 4 button to it.

Setting captions to favorite channels



- 1 Press TV/VIDEO or TV to select TV mode.

- 2 Press MENU.

- 3 Press + or - to select SET UP and press RETURN.

- 4 Press + or - to select CH CAPTION/GUIDE and press RETURN.



- 5 Press RETURN again.



- 6 Press + or - to select a channel guide number button and press RETURN.
Each time you press + or - the channel positions change to next in turns. The channel number button you select will be the one you press to call up your favorite channel.



- 7 Press + or - to select the channel that you want to caption and press RETURN.



- 8 Enter the letters (up to four) to caption the channel:

(1) Press + or - to select the first letter.
Each time you press + or - the letter changes as shown below and,
0 1 2 3 4 5 6 7 8 9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z



- (2) press RETURN.



- (3) Repeat steps (1) and (2) to select the remaining letters and press RETURN.



(continued)

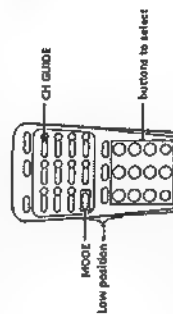
9 Repeat step 5 to 7 to caption other channels.

To erase a caption
Press RESET after step 5.

NOTE

- The position number you already selected appears in yellow.
- If the CH CAPTION/GUIDE menu appears in black, the TV is set to a video input and you cannot select CH CAPTION/GUIDE.
- If more than 90 seconds elapse after you press a button, the menu disappears automatically.

Selecting a captioned channel



1 Press CH GUIDE.

The CHANNEL GUIDE menu appears showing channel captions and the corresponding channel number buttons.



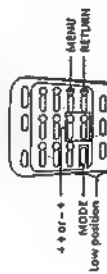
2 Press a channel number button, the DISP or ENT button to select the channel you want.

To cancel the CHANNEL GUIDE menu, Press CH GUIDE again.

Setting video labels

■ KV-27V15132515132V15 only

This feature allows you to label each input mode so that you can easily identify the connected equipment. For example, you can label VIDEO 1 IN = VHS.



1 Press Menu.

Press + \uparrow or \downarrow to select SET UP and press RETURN.

3 Press + + or - + to select VIDEO LABEL and press RETURN.



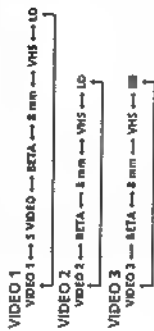
4 press + or - to select the input mode you want to label and press RETURN.



5 Press + or - to select the label and press RETURN.



Each time you press + or -, the label changes as shown below.



6 Repeat steps 4 and 5 to label other input modes.

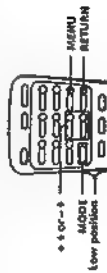
Note

- If more than 90 seconds elapse after you press a button, the menu disappears automatically.

Displaying Caption Vision (CAPTION VISION)

ALPHASIGETEST1A2751542~AX

Some source programs provide with Caption Vision (Closed Caption). To display Caption Vision, select either CC1, CC2, TEXT1, or TEXT2 from the menu. CC1 or CC2 shows you a caption, that is a printed version of the dialog or sound effects of a program. (The mode should be set to CC1 for most programs.) TEXT1 or TEXT2 shows you text, that is information presented using half to full of the screen. It is not usually related to the program.



1 Press MENU.

2 Press **+** or **-** to select CAPTION VISION and press RETURN.



3 Press + or - to select the caption type and press RETURN.



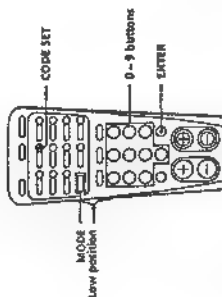
Note

- Captions may appear with a white box or another error instead of a certain word. Poor reception of TV programs can also cause errors in Caption Vision.

Operating video equipment

You can operate video equipment that has an infrared remote sensor with the supplied remote commander. For the operations, set the manufacturer's code number.

Setting the manufacturer's code



While pressing CODE SET, press 0 - 9 to enter the manufacturer's code number (see the chart in the right column). For example, to operate a Sony 8 mm VCR, press 0, 8 and ENTER.



The code numbers for Sony equipment are assigned as follows:

- Beta, ED Beta VCR
- 8 mm VCR
- 03 VHS VCR (Factory preset of Remote Commander.)

Notes

- If more than one code number is listed, try entering them one by one, until you come to the correct code for your equipment.
- In some rare cases, you may not be able to operate your equipment with this remote commander. This is because your equipment may use a code that is not provided with this remote commander. In this case, please use the equipment's own remote control unit.

Caution

When you remove a battery from the remote commander, the code may revert to 03. Reset the code each time you replace the battery, if necessary.

VCR Manufacturer Code numbers

Manufacturer	Code number
SONY	01, 02, 03
CANON	22, 30, 33
EMERSON	10, 11, 12, 15
FISHER	29
FUNAI	05, 08
GENERAL ELECTRIC	25
GOLDSTAR	07, 08, 36
HITACHI	16, 35
JVC	05, 06, 09
MAGNAVOX	38, 19, 26, 27
MITSUBISHI	16, 23, 31
MULTITECH	05, 06
NIC	05, 06
PANASONIC	05, 06
PHILCO	05, 06
PHILIPS	05, 06, 09
QUASAR	05, 06
RCA	07, 08
SAMSUNG	24, 32
SANYO	11, 15
SCOTT	21
SHARP	13, 14
SHIONOMI	34
SYLVANIA	05, 06, 09
SYNTHONIC	29
TEKNIKA	26, 29
TOSHIBA	20, 21
TOTE VISION	25
ZENITH	17

Manufacturer	Code number
MDP	04
SONY	56
KENWOOD	58
MAGNAVOX	52
MARANTZ	54
MITSUBISHI	51
PANASONIC	55
PHILIPS	52
PIONEER	53
RCA	51
SANYO	57
SHARP	56
YAMAHA	53

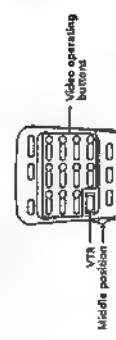
Notes

- If more than one code number is listed, try entering them one by one, until you come to the correct code for your equipment.
- In some rare cases, you may not be able to operate your equipment with this remote commander. This is because your equipment may use a code that is not provided with this remote commander. In this case, please use the equipment's own remote control unit.

Caution

When you remove a battery from the remote commander, the code may revert to 03. Reset the code each time you replace the battery, if necessary.

Operating video equipment



Use the video operating buttons on the remote commander to operate the video equipment.

Buttons on the remote commander	Press POWER
To turn on or off	Press CH +/-
To change channels	Press CH +/- and REC simultaneously
To record	Press ▶
To play	Press ▶
To stop	Press ▶
To fast forward	Press ▶▶
To rewind the tape	Press ◀◀
To pause	Press II
To search the picture forward and backward	Press ▶▶ or ◀◀ during playback

Buttons on the remote commander	Press ▶
To play	Press ▶
To stop	Press ■
To pause	Press II
To resume normal playback	press again
To search the picture forward and backward	Keep pressing ▶▶ or ◀◀ during playback
To resume normal playback	release the button
To search the chapter	Press CH +/-

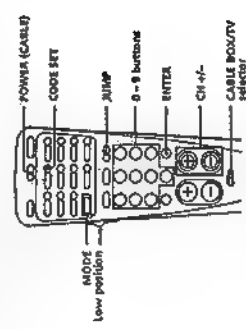
Note

- If the video equipment does not have a certain function, the corresponding button on this remote commander will not operate.

Operating a cable box

For Cable Box Control (Cable Mouse) users (KV-270V, 522V15 only), Set the CABLE BOX/TV selector to TV.

Follow these instructions to set the manufacturer's code which will enable you to operate a connected cable box with the pre-programmed remote commander. For example, you can set the remote commander to operate a connected Zenith cable box.



1 Set the CABLE BOX/TV selector to CABLE BOX.

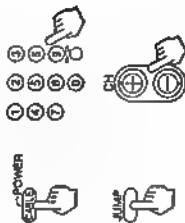


2 While pressing CODE SET, press 6 and 8 (Zenith's code number —see chart on the next page) and ENTER.



(continued)

- 3 Use POWER(CABLE) and the TV control buttons (0-9, ENTER, JUMP and CH +/-) to operate the cable box.**



To operate the TV

Set the CABLE BOX/TV selector to TV. Then use the TV control buttons to control the TV.

For more details on operating the cable box Refer to the operating instructions that come with the cable box.

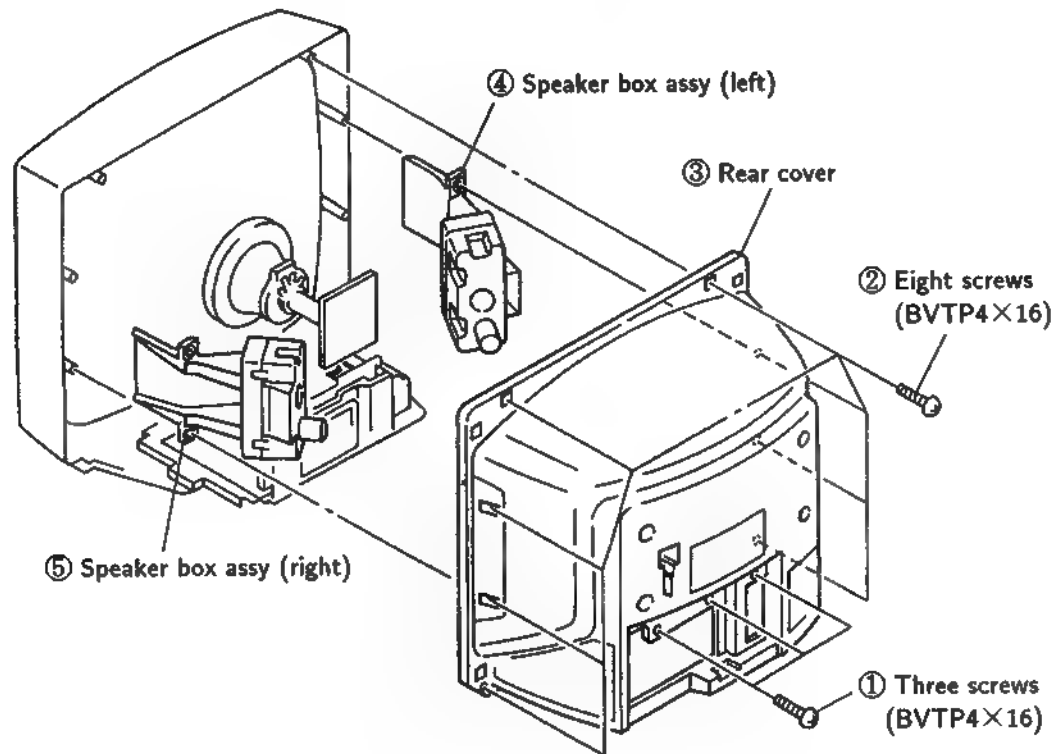
Manufacturers	Code number
JERROLD	60, 61, 62, 63, 64, 65, 73
PIONEER	69, 70
SCIENTIFIC ATLANTA	66, 67
TOCOM	71, 72
ZENITH	68

Notes

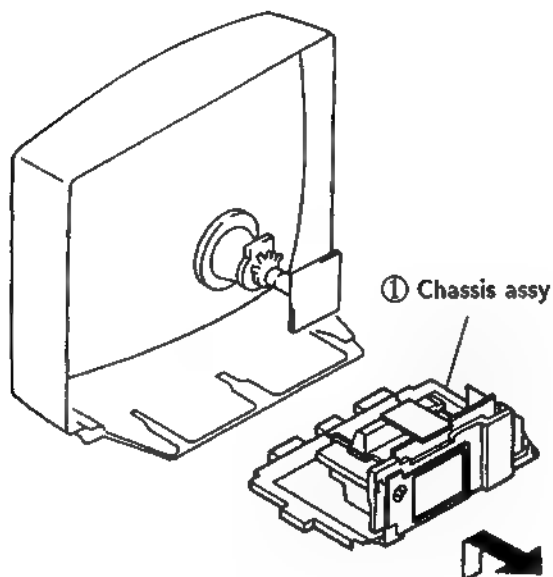
- * If more than one code number is listed, try entering them one by one until you come to the correct code for your equipment.
- * If you enter a new code number, the code number you previously entered at that setting is erased.
- * In some cases, your equipment may use a code that is not provided with this remote commander and you may not be able to operate your cable box with the supplied remote commander. In this case, use the equipment's own remote control unit.
- * When you remove a battery from the remote commander, the code may be erased. Reset the code each time you replace the battery, if necessary.

SECTION 2 DISASSEMBLY

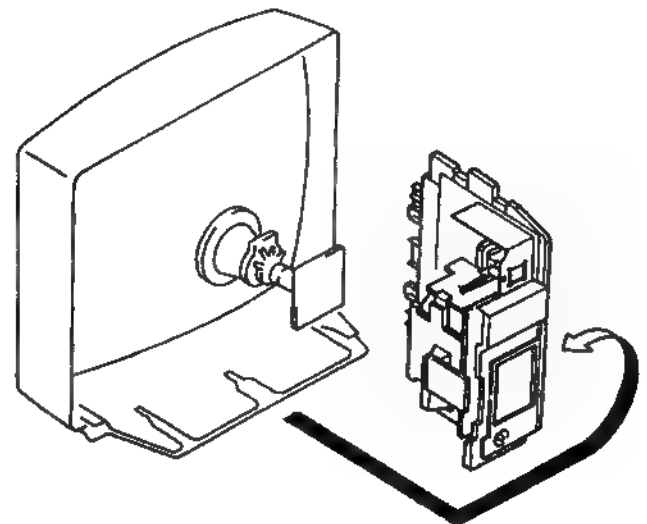
2-1. REAR COVER AND SPEAKER BOX ASSEMBLY REMOVAL



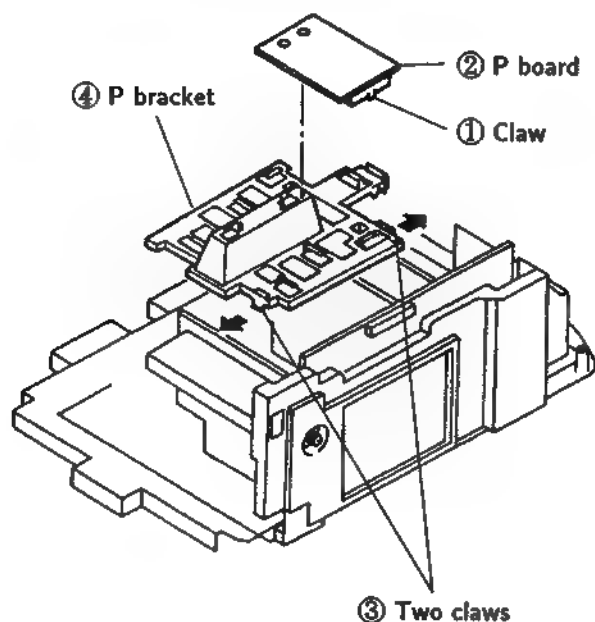
2-2. CHASSIS ASSEMBLY REMOVAL



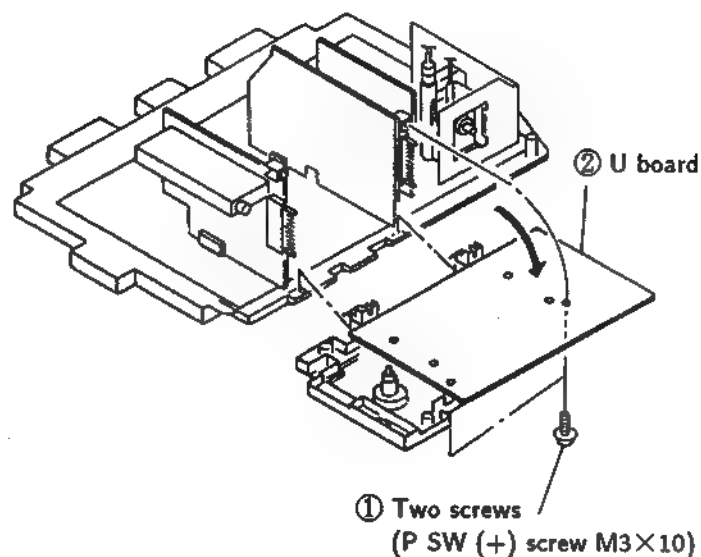
2-3. SERVICE POSITION



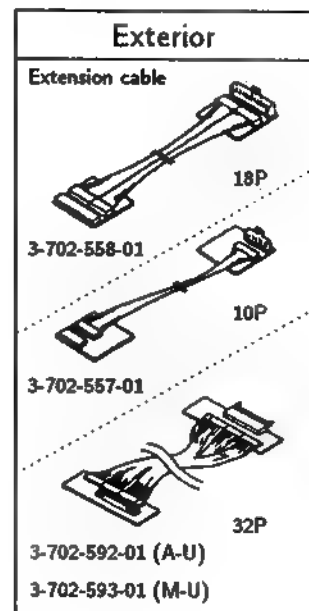
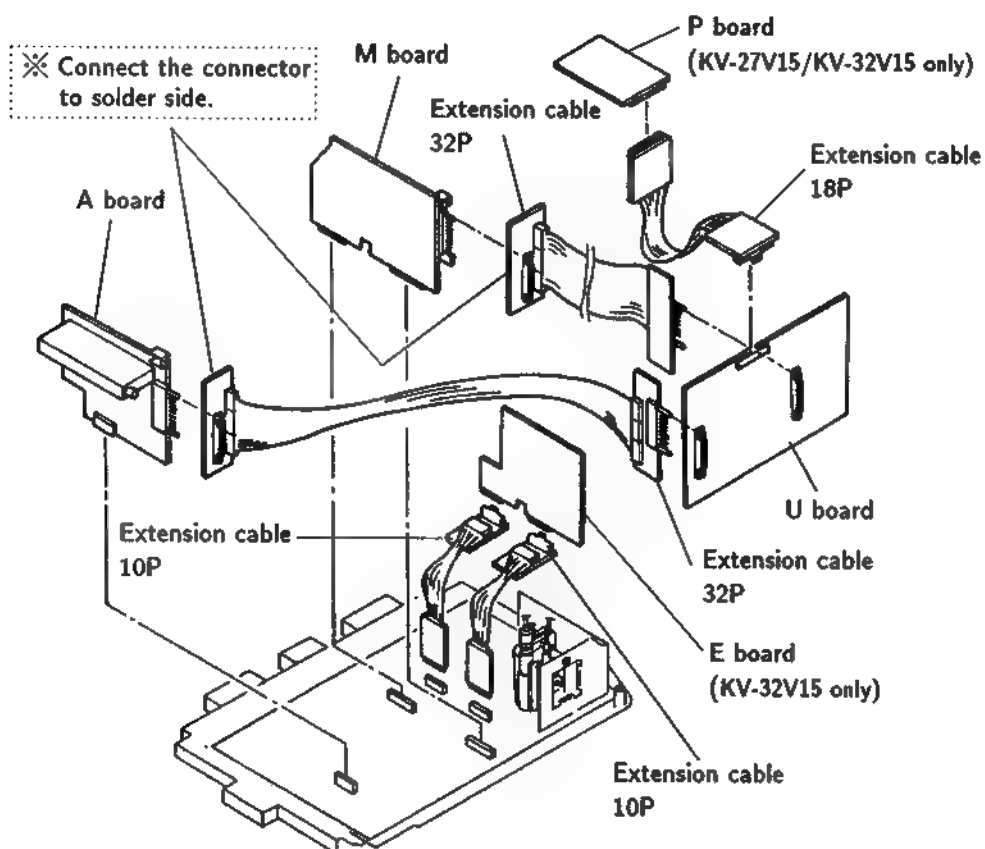
2-4. P BOARD AND BRACKET REMOVAL (KV-27V15/KV-32V15 only)



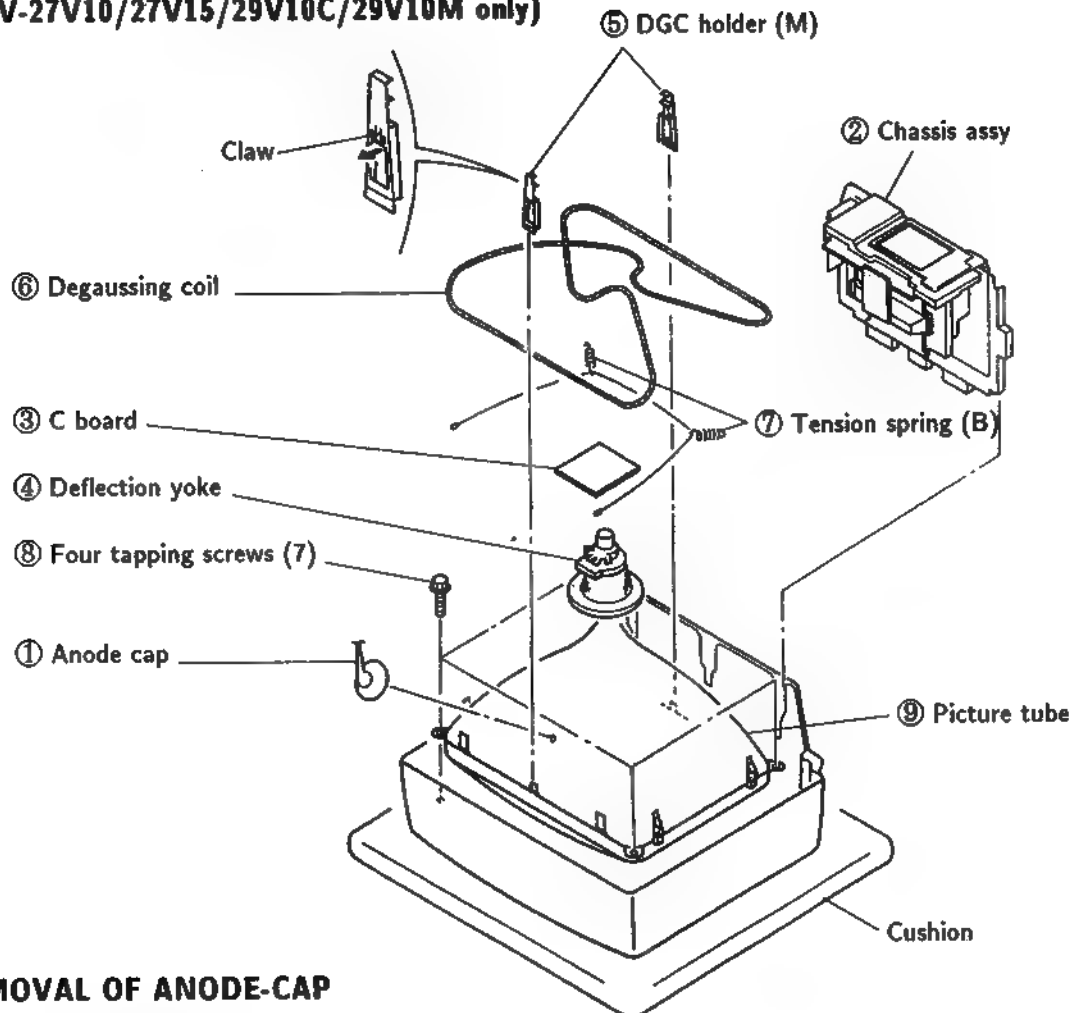
2-5. U BOARD REMOVAL



2-6. EXTENSION CABLE



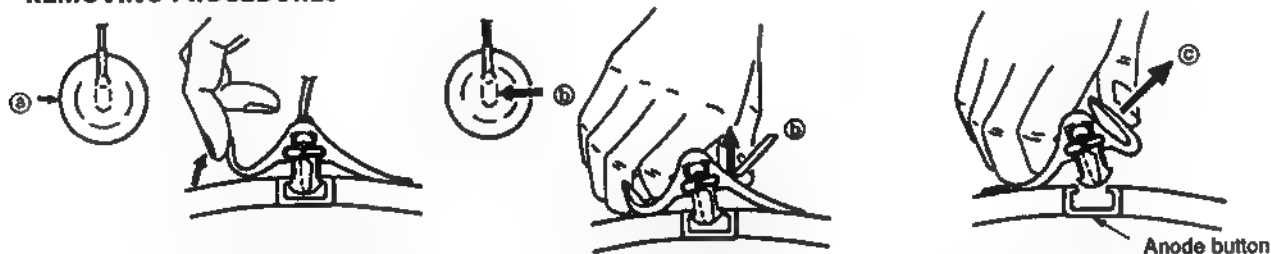
2-7. PICTURE TUBE REMOVAL (1) (KV-27V10/27V15/29V10C/29V10M only)



• REMOVAL OF ANODE-CAP

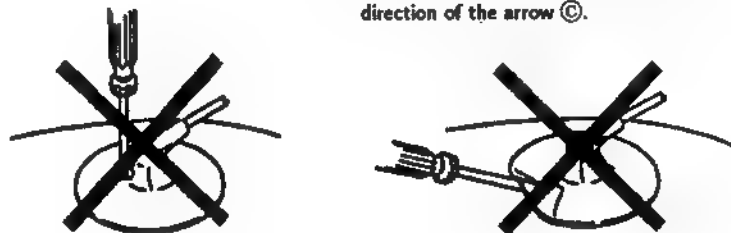
NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT chield or carbon painted on the CRT, after removing the anode.

• REMOVING PROCEDURES

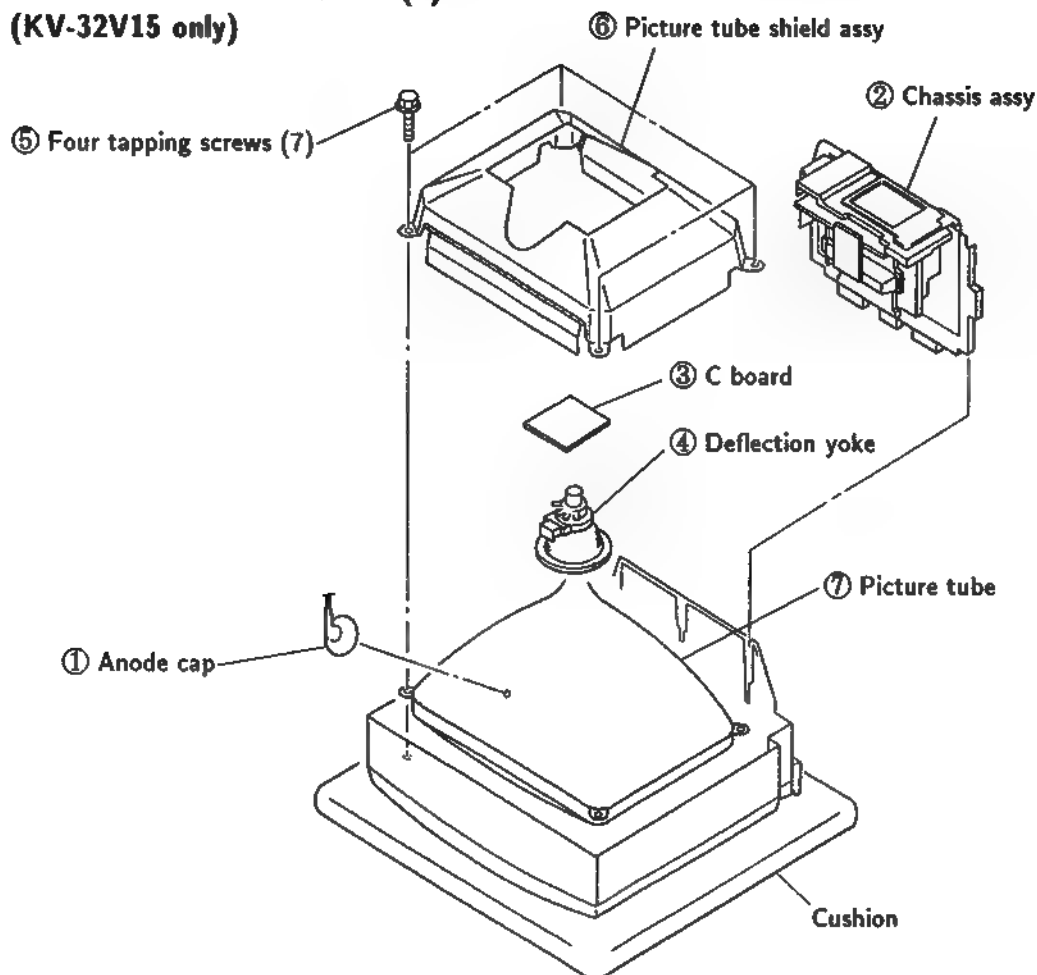


• HOW TO HANDLE AN ANODE-CAP

- ① Don't hurt the surface of anode-caps with sharp shaped material!
- ② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.
- ③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.



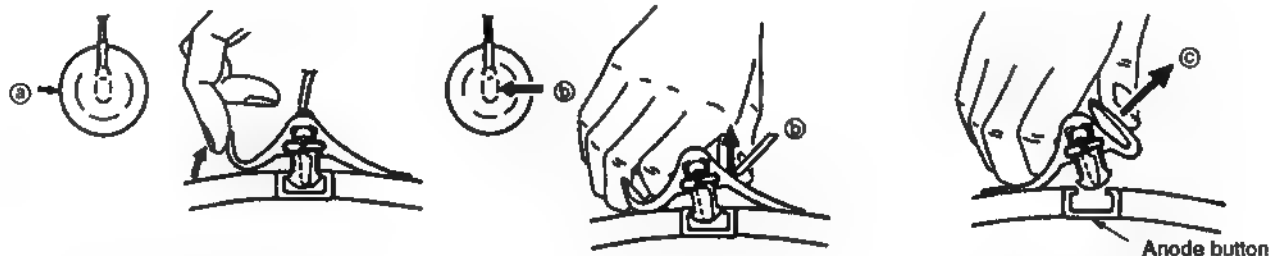
2-7. PICTURE TUBE REMOVAL (2) (KV-32V15 only)



• REMOVAL OF ANODE-CAP

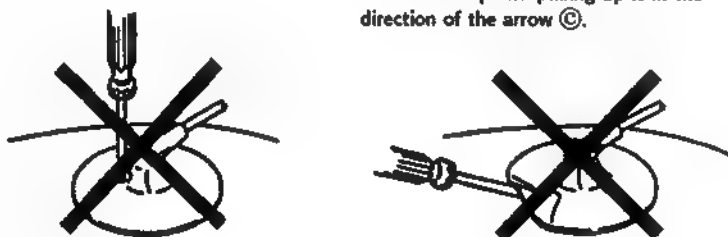
NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon painted on the CRT, after removing the anode.

• REMOVING PROCEDURES



• HOW TO HANDLE AN ANODE-CAP

- ① Don't hurt the surface of anode-caps with sharp shaped material!
- ② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.
- ③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.



SECTION 3

SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switch should be set as follows unless otherwise noted :

PICTURE control RESET
BRIGHTNESS control center

Perform the adjustments in order as follows :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

Note : Test Equipment Required.

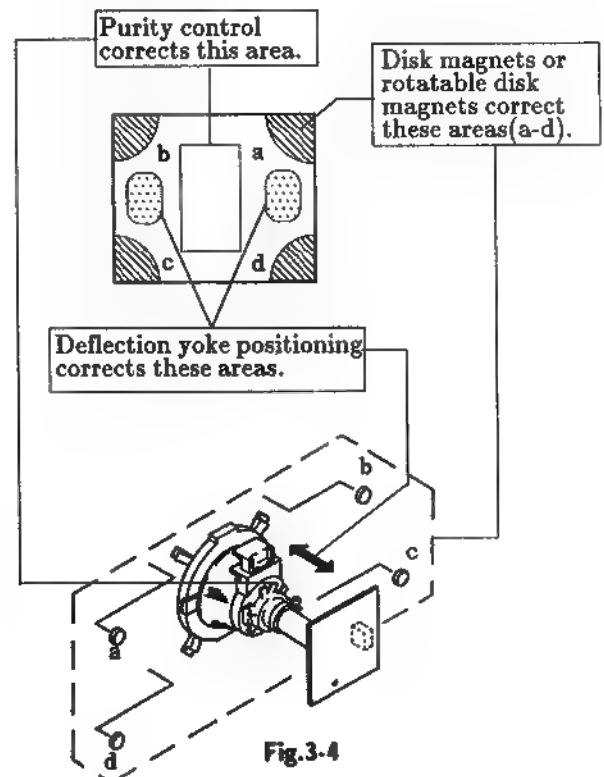
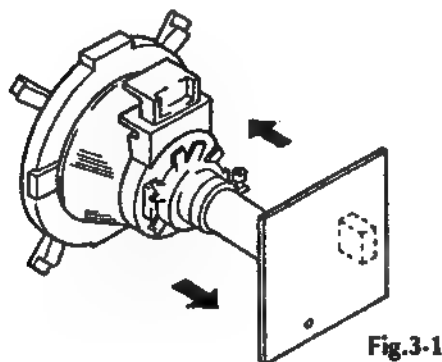
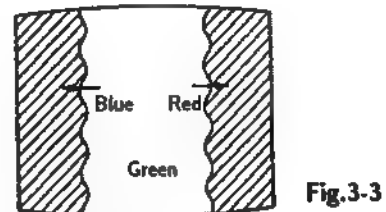
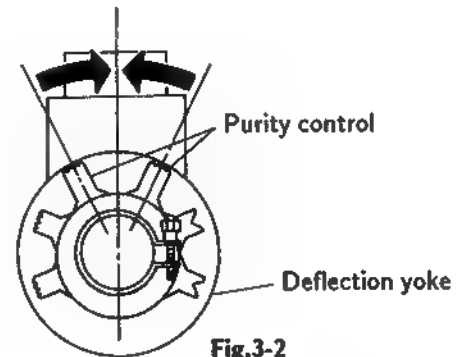
1. Color-bar/Pattern Generator
2. Degausser
3. Oscilloscope

Preparations :

- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator.
Contrast } normal
Brightness }
2. Set the pattern generator raster signal to green.
3. Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side.
(See Figures 3-1 through 3-3.)
4. Move the deflection yoke forward and adjust so that entire screen is green. (See Figure 3-1.)
5. Switch the raster signal to blue, then to red and verify the condition.
6. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
7. If the beam does not land correctly in all the corners, use a magnet to adjust it.
(See Figure 3-4.)

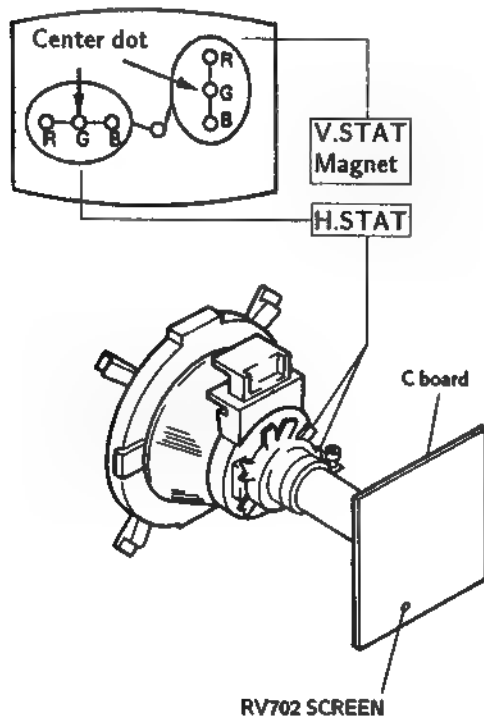


3-2. CONVERGENCE

Preparation :

- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

(1) Horizontal and Vertical Static Convergence



1. V. STAT Adjustment

Turn the V. STAT tabs to left or right so that the vertical red, green and blue dots converge in the center of the screen.

2. H. STAT Adjustment

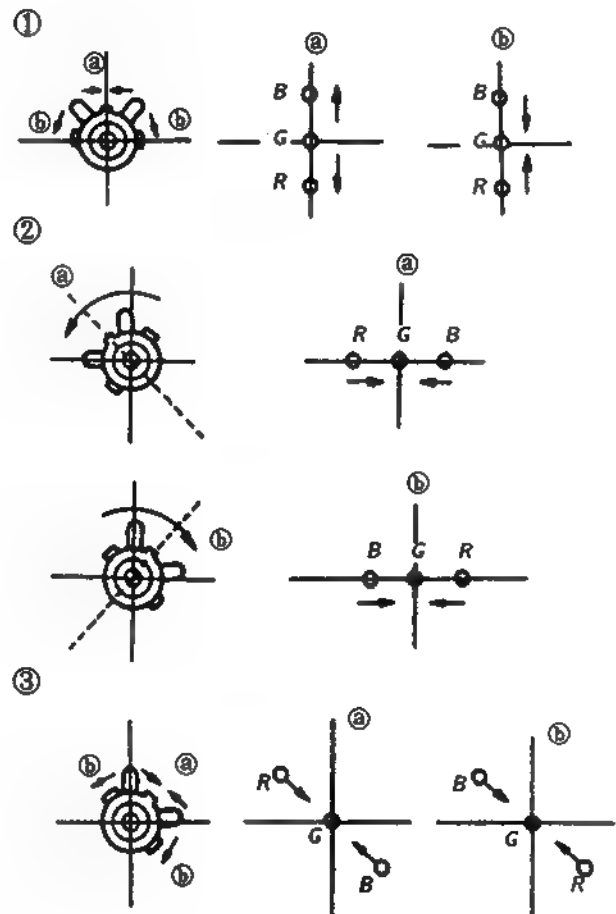
Simultaneously turn the 2 V. STAT tabs in the same direction so that the horizontal red, green and blue dots converge in the center of the screen.

Note : Do not move the purity tab during adjustment with the V. STAT tab. If the purity tab is moved, the convergence condition will change, and possibly lead to misadjustment of a different yoke.

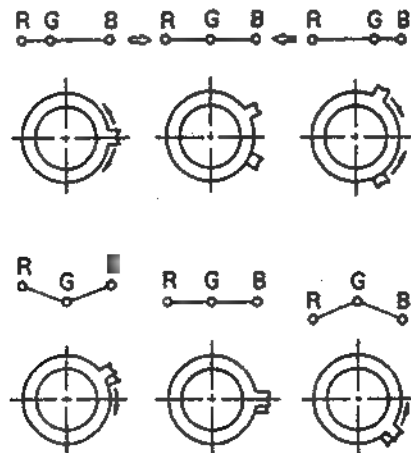
- Tilt the V. STAT tabs and adjust the static convergence by turning the V. STAT tabs to the left or right.



- The V. STAT tabs are moved in the direction of the ① and ② arrows and the red, green and blue points move as shown below.



● Operation of BMC (Hexapole) Magnet

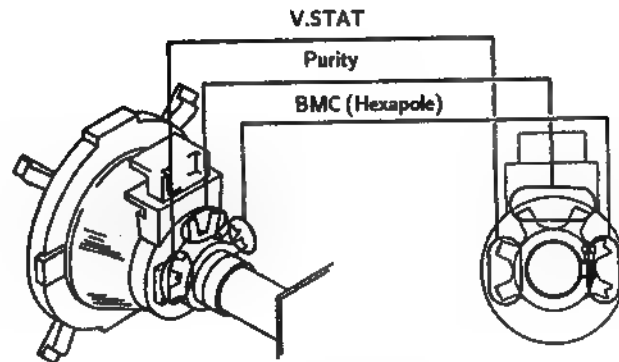


- The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
Use the V.STAT tabs to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

(2) Dynamic Convergence Adjustment

Preparations :

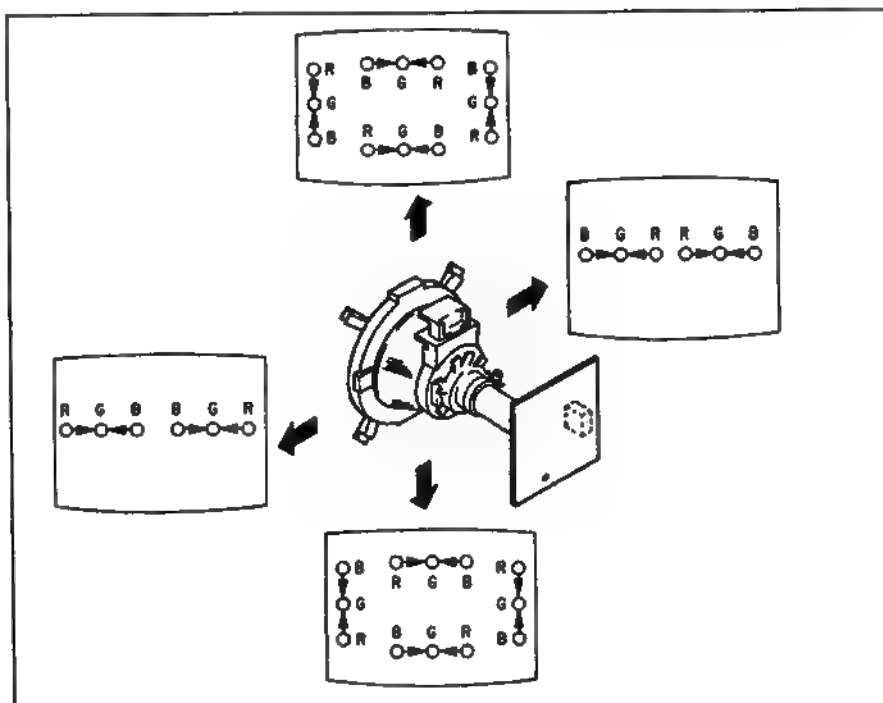
- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
1. Slightly loosen the deflection yoke screws.
 2. Remove the deflection yoke spacer.



● Y separation axis correction magnet adjustment

1. Receive the cross-hatch signal, and adjust [PIX] to "MIN" and [BRT] to "standard".
2. Adjust the deflection yoke to the upright condition when it hits the CRT.
3. Adjust so that the Y separation axis correction magnet on the neck assembly is symmetrical at the top and bottom (open state).
4. Return the deflection yoke to its original position.

3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Install the deflection yoke spacer.

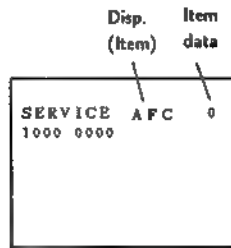


(3) Dynamic Convergence Circuit Adjustment

SERVICE MODE PROCEDURE

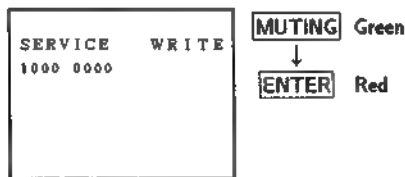
1. Standby mode.(Power off)
2. **DISPLAY** → **5** → **VOL (+)** → **POWER** on the Remote Commander. (Press each button within a second.)

SERVICE ADJUSTMENT MODE IN



3. The CRT displays the item Being adjusted.
4. Press **1** or **4** on the Remote Commander to select the item.
5. Press **3** or **6** on the Remote Commander to change the data.
6. Press **MUTING** then **ENTER** to write into memory.

SERVICE ADJUSTMENT MODE MEMORY



7. Press **8** then **ENTER** on the Remote Commander to initialize.



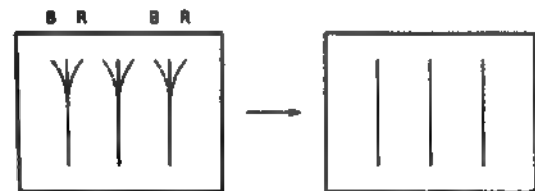
8. Turn set off and on to exit.

- Set to Service Mode.
- Input a cross-hatch signal.
- Press **1** and **4** select an item of adjustments.
- Adjust **3** and **6** to the best picture.

No.	Disp.	Item	Ave.Data
40	UYBO	Upper Y-Bow	31
41	LYBO	Lower Y-Bow	25
42	HAMP	H. Amp	33
43	HTIL	H. Tilt	33
44	UCBO	Upper C-Bow	38
45	UTIL	Upper Tilt	40
46	LCBO	Lower C-Bow	41
47	LTIL	Lower Tilt	46
48	DCSH	DC Shift	37

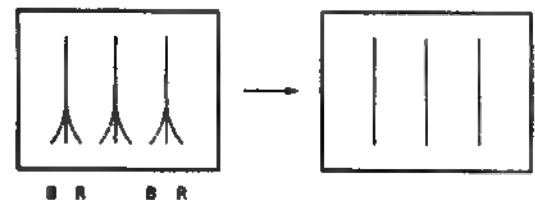
U. YBOW

Select UYBO with **1** and **4**



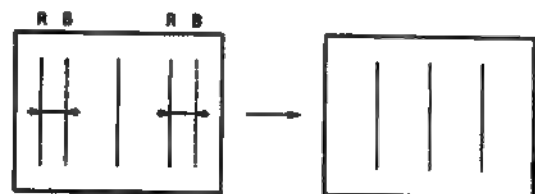
L. YBOW

Select LYBO with **1** and **4**



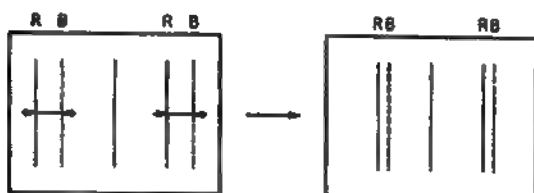
H. AMP

Select HAMP with **1** and **4**



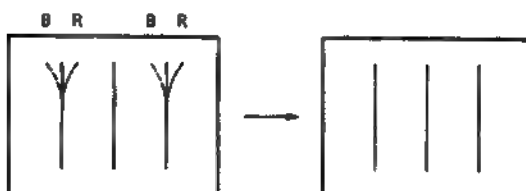
H. TILT

Select HTILT with **1** and **4**



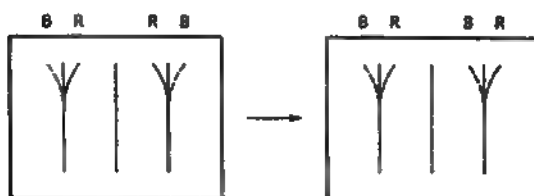
U. CBOW

Select UCBO with **1** and **4**



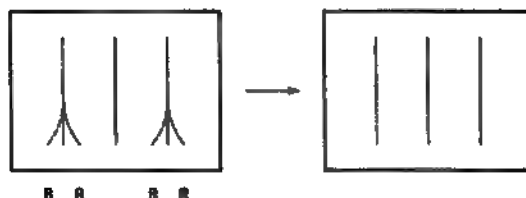
U. TILT

Select UTIL with **1** and **4**



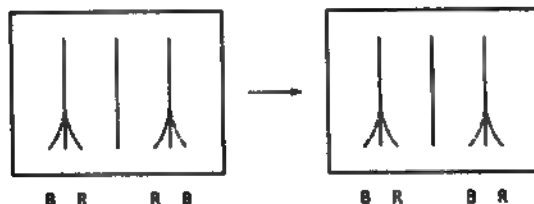
L. CBOW

Select LCBO with **1** and **4**

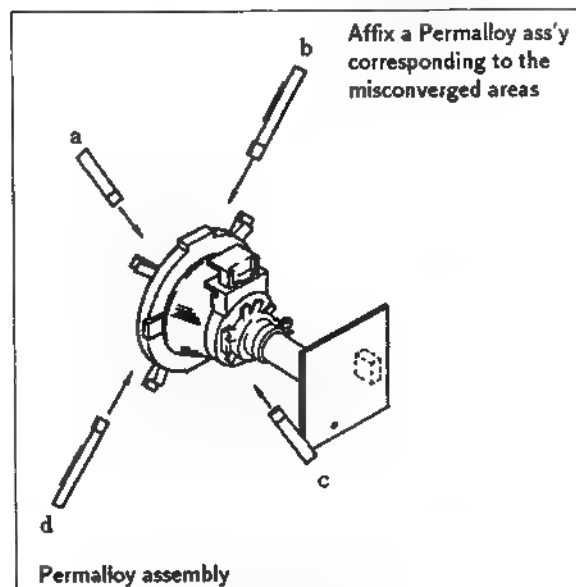
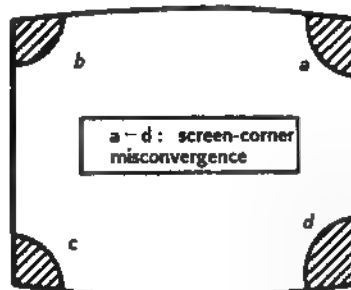


L. TILT

Select L. TIL with **1** and **4**

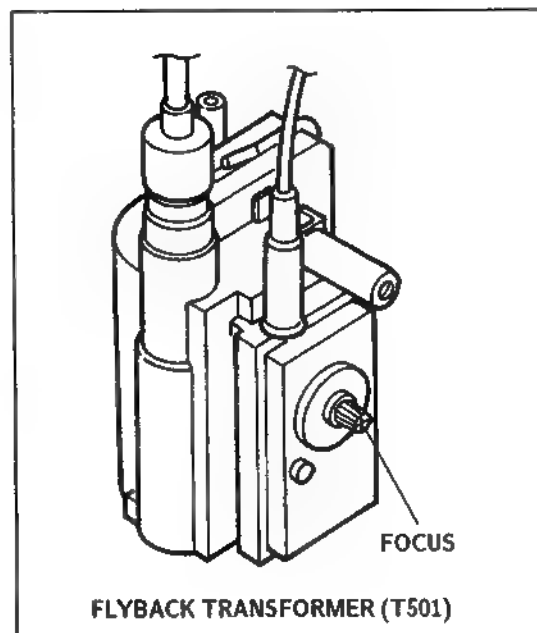


(4) Screen-corner Convergence



3-3. FOCUS ADJUSTMENT

Adjust FOCUS control on the flyback transformer for a best focus.



SECTION 4 SAFETY RELATED ADJUSTMENTS

3-4. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS

1. G 2 (SCREEN) ADJUSTMENT (RV 702)

- Set the PICTURE and BRIGHTNESS to normal.
- Apply DC voltage of 170 V to the cathodes of R, G and B from DC stabilized power source.
- While watching the picture, adjust the G2 control (RV 702) to the just the retrace line disappears.

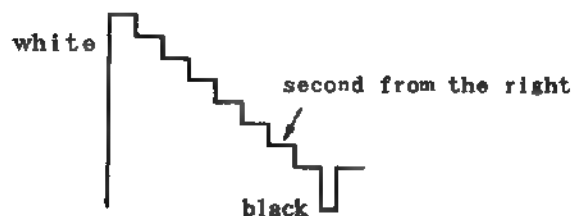
2. WHITE BALANCE ADJUSTMENTS

No.	Disp.	Item	Ave. Data
14	GAMP	Green Amp	20
15	BAMP	Blue Amp	17
16	GCUT	Green Cut-off	7
17	BCUT	Blue Cut-off	8
22	SBRT	Sub Bright	35


- Input an entire white signal.
- Set to service adjustment mode.
- Set the PICTURE and BRIGHT to minimum.
- Adjust with SBRT if necessary.
- Select G CUT and B CUT with [1] and [4].
- Adjust with [3] and [6] for the best white balance.
- Set the PICTURE and BRIGHT to maximum.
- Select GAMP and BAMP with [1] and [4].
- Adjust with [3] and [6] for the best white balance.
- Write into the memory by pressing [MUTING] then [ENTER].

3. SUB BRIGHT ADJUSTMENT

- Set to service mode.
- Input a staircase signal of black and white from the pattern generator.
- BRIGHTNESS ... RESET
PICTURE minimum
- Select SBRT with [1] and [4], and adjust SUB BRIGHT level with [3] and [6] so that the stripe second from the right is dimly lit.



R511 CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components (marked with  on the schematic diagram).
PM501, R338, R511, R632, R645, R650

①

1. Preparation before confirmation

- Remove R635 on the D board and connect a variable resistor (RV1: about 4.7kΩ-10kΩ) between pin ① of IC601 and B+ line.
- Supply 130±2.0V AC to with variable auto-transformer.

2. Hold-down operation confirmation


- Turn the POWER switch ON, and receive entirely white signals and adjust ABL current to 1760±50μA with PICTURE and BRIGHT etc controls.
- Increase B+ line voltage gradually by adjusting the resistor of RV1. Confirm that the minimum voltage is less than 142.5V DC (27 inch) 140.0V DC (32 inch) whereby the raster disappears during operation of hold-down circuit.

NOTE: When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.


- Turn the POWER switch ON, and receive dot signals and adjust ABL current to 160±50μA with PICTURE and BRIGHT etc controls.
- Increase B+ line voltage gradually by adjusting the resistor of RV1. Confirm that the minimum voltage is less than 145.0V DC (27 inch), 143.5V DC (32 inch) whereby the raster disappears during operation of hold-down circuit.

NOTE: When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

3. Hold-down readjustment

When step 2 is not satisfied, readjustment should be performed by altering the resistance value of R511 (a component marked with ).

R524 CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components (marked with  on the schematic diagram).
IC601, PM501, D504, C598, R338, R509, R524, R632, R635, R645, T501

②

1. Preparation before confirmation

- Turn the POWER switch ON, and receive entirely white signals and set the PICTURE and BRIGHT controls to maximum.
- Confirm that voltage of the check terminal of TP-85 (D BOARD) is more than 114.0V DC (27 inch) 122.3V DC (32inch) when the set is operating normally with 120.0±2.0V AC supply.

2. Hold-down operation confirmation


- Turn the POWER switch ON, and receive entirely white signals and adjust ABL current to 1760±50μA with PICTURE and BRIGHT etc controls.
- Apply DC voltage of over 130.0V DC gradually to the check terminal of TP-85 (D BOARD) via 1T40 from the DC stabilized power source. Confirm that the minimum voltage is less than 137.5V DC (27inch) 143.5V DC (32inch) whereby the raster disappears during operation of hold-down circuit.

NOTE: When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

- Turn the POWER switch ON, and receive dot signals and adjust ABL current to 160±50μA with PICTURE and BRIGHT etc controls.
- Apply DC voltage of over 130.0V gradually to the check terminal of TP-85 (D BOARD) via 1 T40 from the DC stabilized power source. Confirm that the minimum voltage is less than 138.0V DC (27inch) 144.1V DC (32inch) whereby the raster disappears during operation of hold-down circuit.

NOTE: When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

3. Hold-down readjustment

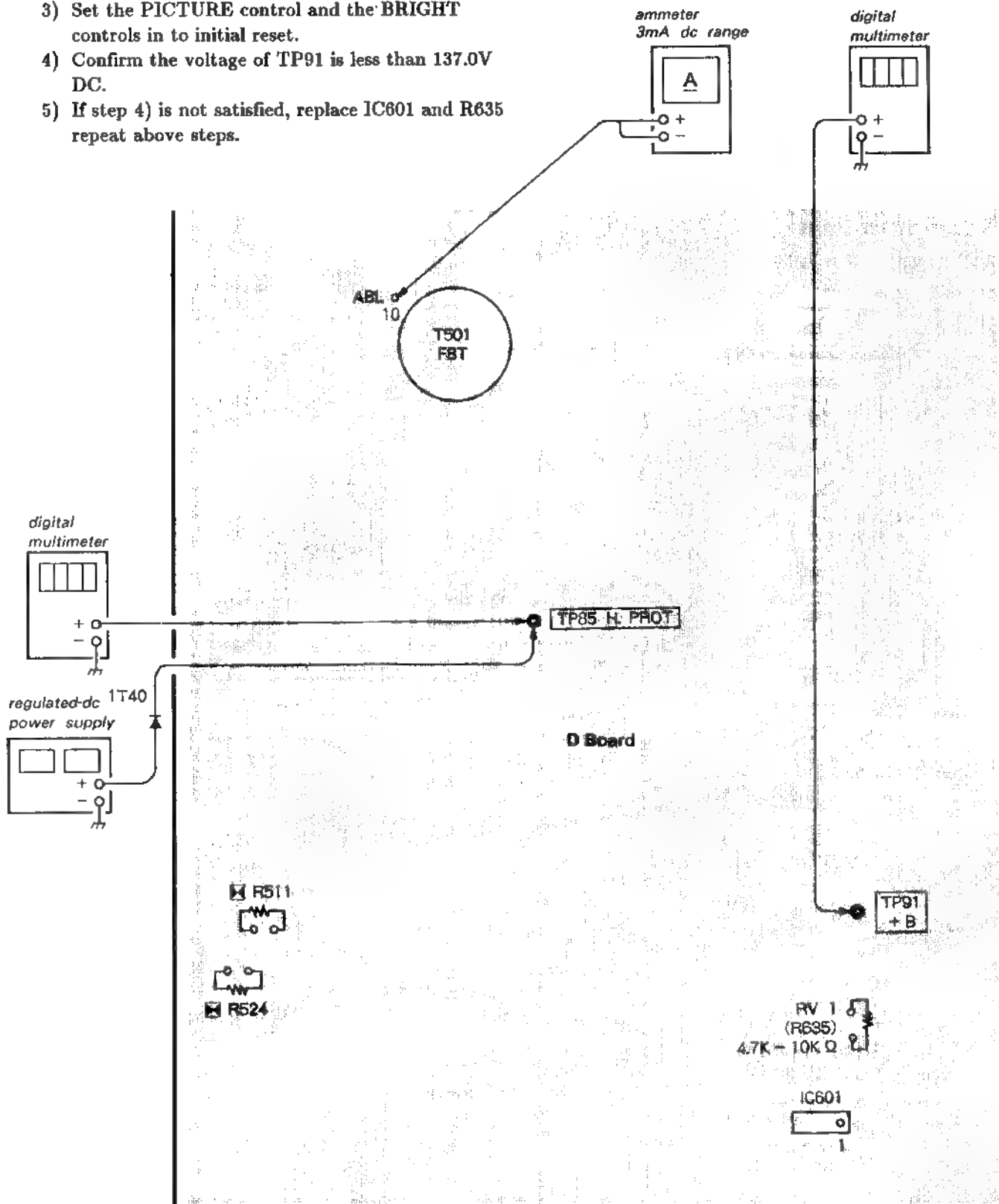
When step 2 is not satisfied, readjustment should be performed by altering the resistance value of R524 (a component marked with ).

B+ VOLTAGE CONFIRMATION

The following adjustments should always be performed when replacing IC601 and R635.

- Supply 130±2.0V AC to with variable autotransformer.
- Receive entirely monoscope signal.
- Set the PICTURE control and the BRIGHT controls in to initial reset.
- Confirm the voltage of TP91 is less than 137.0V DC.
- If step 4) is not satisfied, replace IC601 and R635 repeat above steps.

* Use a digital multimeter whose input impedance over 100 MΩ when confirming the voltage of the protector terminal of TP85.

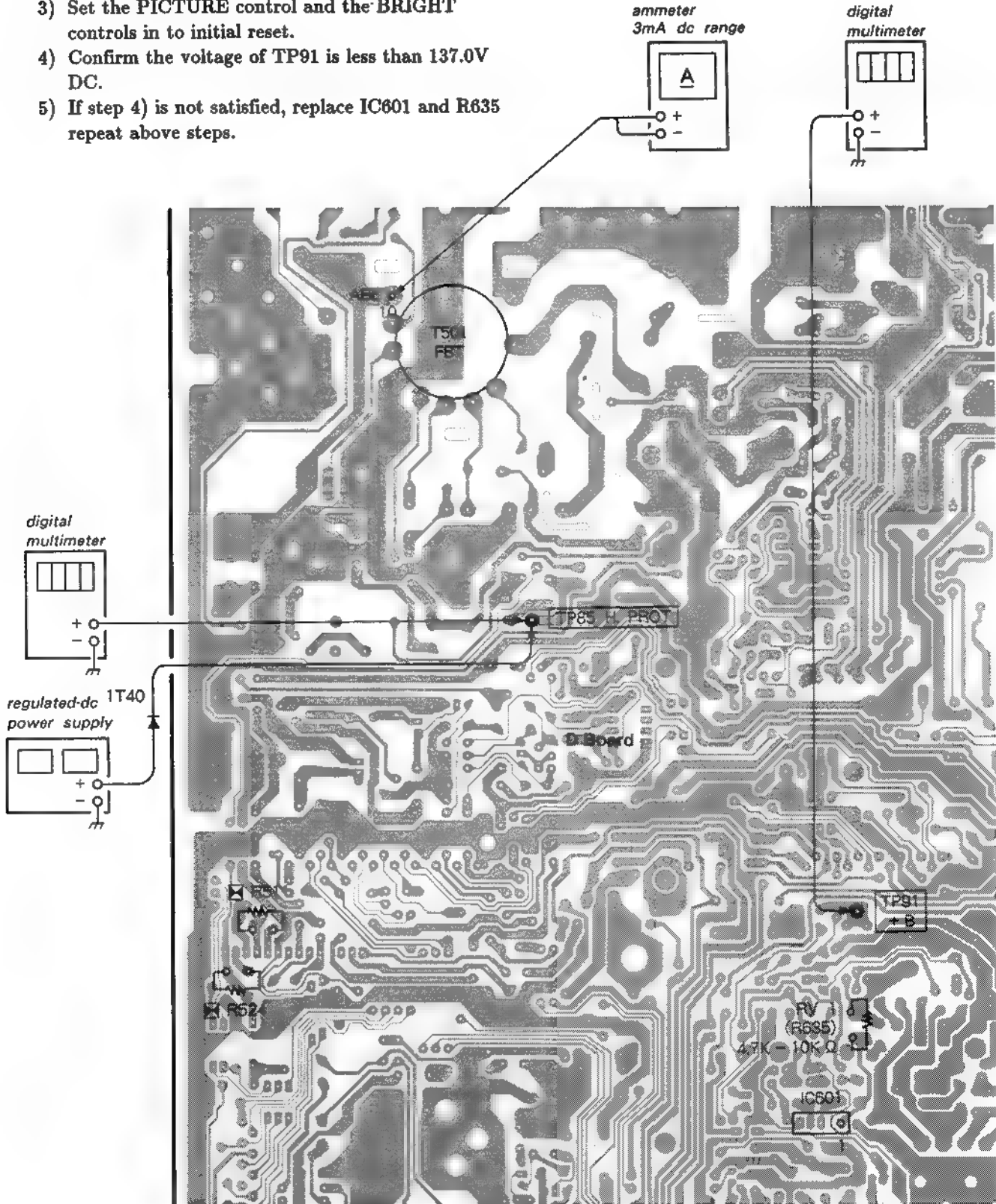


B+ VOLTAGE CONFIRMATION

The following adjustments should always be performed when replacing IC601 and R635.

- 1) Supply 130 ± 1.5 V AC to with variable autotransformer.
- 2) Receive entirely monoscope signal.
- 3) Set the PICTURE control and the BRIGHT controls in to initial reset.
- 4) Confirm the voltage of TP91 is less than 137.0V DC.
- 5) If step 4) is not satisfied, replace IC601 and R635 repeat above steps.

* Use a digital multimeter whose input impedance over 100 M Ω when confirming the voltage of the protector terminal of TP85.



SECTION 5 CIRCUIT ADJUSTMENTS

5-1. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

Use of Remote Commander can be performed circuit adjustments about this model.

NOTE : Test Equipment Required.

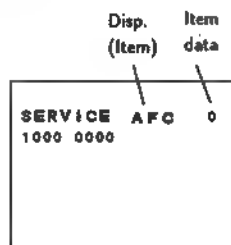
1. Pattern Generator
2. Frequency counter
3. Digital multimeter
4. Audio OSC

1. METHOD OF SETTING THE SERVICE ADJUSTMENT MODE

SERVICE MODE PROCEDURE

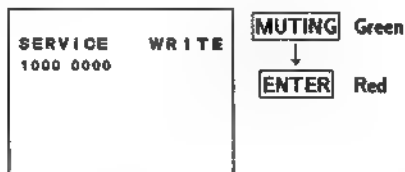
1. Standby mode.(Power off)
2. **[DISPLAY]** → **[5]** → **[VOL (+)]** → **[POWER]** on the Remote Commander. (Press each button within a second.)

SERVICE ADJUSTMENT MODE IN

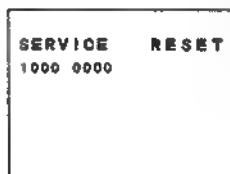


3. The CRT displays the item Being adjusted.
4. Press **[1]** or **[4]** on the Remote Commander to select the item.
5. Press **[3]** or **[6]** on the Remote Commander to change the data.
6. Press **[MUTING]** then **[ENTER]** to write into memory.

SERVICE ADJUSTMENT MODE MEMORY



7. Press **[8]** then **[ENTER]** on the Remote Commander to initialize.



Carry out step 7) when adjusting IDs 0 to 4 and when replacing and adjusting IC102.

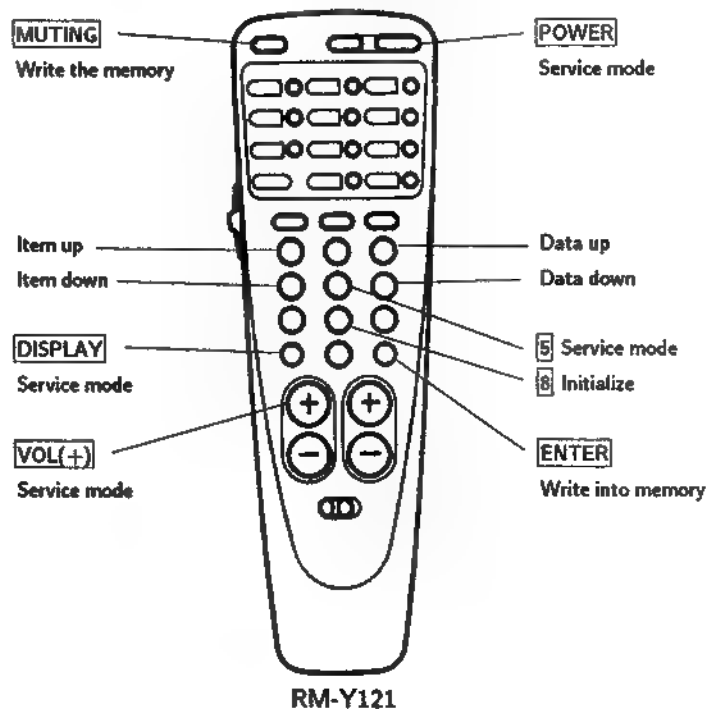
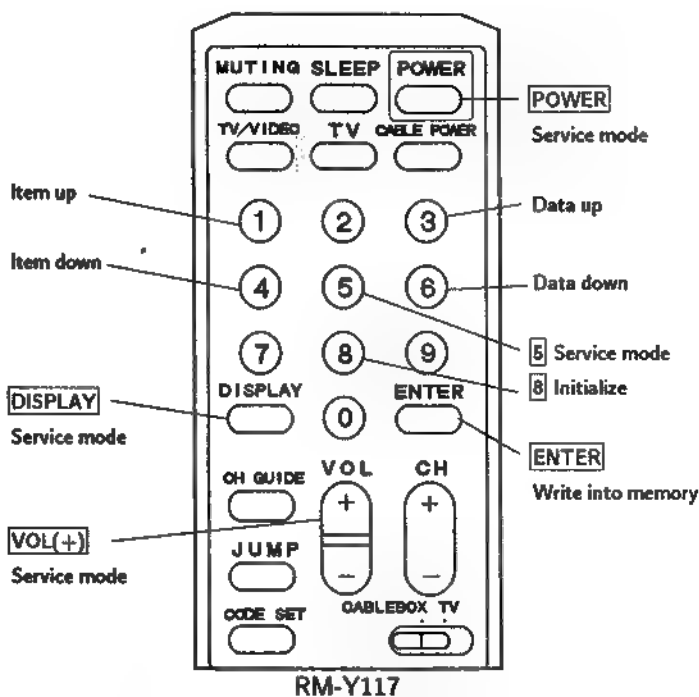
Factory original setting

8. Turn set off and on to exit.

2. MEMORY WRITE CONFIRMATION METHOD

1. After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
2. Turn the power switch ON and set to Service Mode.
3. Call the adjusted items again, confirm they were adjusted.

3. ADJUST BUTTONS AND INDICATOR



4. AN ITEM OF ADJUSTMENTS

No.	Disp.	Item	Data range	Ave. data (27 inch)	Ave. data (32 inch)
1	AFC	AFC Loop Gain	0~3	* 0	* 0
2	HFRE	H. Frequency	0~127	70	70
3	VFRE	V. Frequency	0~31	14	14
4	VPOS	V. Center	0~31	17	17
5	VSIZ	V. Size	0~63	28	28
6	VLIN	V. Linearity	0~15	8	8
7	VSCO	V. Correction	0~15	6	6
8	HPOS	H. Center	0~15	6	6
9	HSIZ	H. Size	0~31	31	31
10	PAMP	Pin Amp	0~31	24	24
11	CPIN	Corner Pin	0~7	3	3
12	PPHA	Pin Phase	0~15	6	6
13	VCOM	V. Compensation	0~7	* 2	* 2
14	GAMP	Green Amp	0~31	20	20
15	BAMP	Blue Amp	0~31	17	17
16	GCUT	Green Cut Off	0~15	7	7
17	BCUT	Blue Cut Off	0~15	8	8
18	CROM	Chroma Trap	0~63	* 28	* 28
19	SPIX	Sub Contrast	0~63	20	20
20	SHUE	Sub Hue	0~63	33	33
21	SCOL	Sub Color	0~63	32	32
22	SBRT	Sub Bright	0~63	35	35
23	RGBP	RGB Picture	0~63	* 30	* 10
24	SHAP	Sharpness	0~15	* 10	7
25	VSMO	V Pull in Range	0, 1	* 0	* 0
26	REF	Reference line	0~3	* 2	* 2
27	ROFF	Red Out	0, 1	1	1
28	GOFF	Green Out	0, 1	1	1
29	BOFF	Blue Out	0, 1	1	1
30	ABLM	ABL Mode	0, 1	* 0	* 0
31	NOTC	Notch On/Off	0, 1	* 1	* 1
32	DRGB	OSD intensity	0, 1	* 0	* 0
33	DISP	Display Position	0~63	40	40
34	DPDV	Lumipon (dpdv)	0~3	* 1	* 1
35	MPIC	Lumipon (depth)	0~63	* 48	* 48
36	SVOL	Sub Volume	0~15	* 0	* 0
37	SBAL	Sub Balance	0~15	7	7
38	BASS	Sub Bass	0~15	* 8	* 8
39	TRE	Sub Treble	0~15	* 8	* 8
40	UYBO	Upper Y. Bow	0~63	31	31
41	LYBO	Lower Y. Bow	0~63	25	25
42	HAMP	H. Amp	0~63	33	33
43	HTIL	H. Tilt	0~63	33	33
44	UCBO	Upper C. Bow	0~63	38	38
45	UTIL	Upper Tilt	0~63	40	40
46	LCBO	Lower C. Bow	0~63	41	41
47	LTIL	Lower Tilt	0~63	46	46
48	DCSH	DC. Shift	0~63	37	37
49	PHPO	PinP H Position	0~127	76	76
50	PHUE	PinP Hue	0~127	* 0	* 0
51	ID-0	Model ID	0~127	by Model	by Model
52	ID-1	Model ID	0~127	by Model	by Model
53	ID-2	Model ID	0~127	by Model	by Model
54	ID-3	Model ID	0~127	by Model	by Model
55	ID-4	Model ID	0~127	by Model	by Model

Note : No. from 1 to 55 is to show adjustment order.

SERVICE ID 0 64
1000 0000 1000 000

Please adjust the function values as shown below when IC 102 on M board was replaced.

KV-27V 10 (US/CND)

No.	Disp.	Disp.	Data
51	ID-0	1 1 1 1 0 0 0	120
52	ID-1	1 1 1 1 1 1 1	127
53	ID-2	1 0 0 1 0 0 0	72
54	ID-3	0 0 0 0 0 0 0	0
55	ID-4	0 0 1 0 0 0 1	17

KV-27V 15 (US/CND)

No.	Disp.	Disp.	Data
51	ID-0	1 1 1 1 0 0 0	120
52	ID-1	1 1 1 1 1 1 1	127
53	ID-2	1 0 0 1 0 0 0	72
54	ID-3	1 0 0 0 0 0 0	64
55	ID-4	0 0 1 0 0 1 1	19

KV-29V 10 C (WP)/29 V 10 M (E)

No.	Disp.	Disp.	Data
51	ID-0	1 1 1 1 0 0 0	120
52	ID-1	1 1 1 1 1 1 1	127
53	ID-2	0 1 0 0 0 0 0	32
54	ID-3	0 0 0 0 0 0 0	0
55	ID-4	0 0 1 0 0 0 1	17

KV-32 V 15 (US/CND)

No.	Disp.	Disp.	Data
51	ID-0	1 1 1 1 0 0 0	120
52	ID-1	1 1 1 1 1 1 1	127
53	ID-2	1 0 0 1 0 0 0	72
54	ID-3	0 1 0 0 1 0 0	36
55	ID-4	0 0 1 0 0 1 1	19

* : Set-up value

5-2. M BOARD ADJUSTMENTS

H.FREQUENCY ADJUSTMENT (HFRE)

1. Input a color-bar signal.
2. Set to Service adjustment Mode.
3. Connect a frequency counter to CN131 Pin⑬ (H. DRIVE) connector and ground.
4. Call the item of AFC, set to 3 level (free run).
5. Select HFRE with **[1]** and **[4]**.
6. Adjust with **[3]** and **[6]** for the $15734 \pm 60\text{Hz}$.
7. Call the item of AFC again, adjust the level "0".
8. Write into the memory by pressing **[MUTING]** then **[ENTER]**.

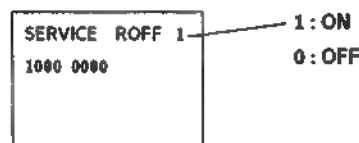
V.FREQUENCY ADJUSTMENT (VFRE)

1. Select video 1 with no connecting the signal.
2. Set to Service adjustment Mode.
3. Connect the frequency counter across connector CN131 Pin⑦ (V. DRIVE) connector and ground.
4. Select VFRE with **[1]** and **[4]**.
5. Adjust with **[3]** and **[6]** for the $56 \pm 0.5\text{Hz}$.
6. Write the memory by pressing **[MUTING]** then **[ENTER]**.

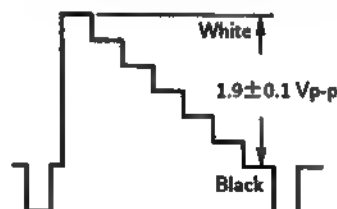
SUB CONTRAST ADJUSTMENT (SPIX)

1. Input a color-bar signal.
2. Set to Service adjustment Mode.
3. Set the conditions as follows.

PICTURE	.....	MAX
COLOR	.....	MIN
BRIGHT	.....	CENTER
R OFF	.....	ON (1)
G OFF	.....	OFF (0)
B OFF	.....	OFF (0)



4. Connect an oscilloscope to CN703 Pin① (R. OUT) of C board and ground.
5. Select SPIX with **[1]** and **[4]**.
6. Adjust with **[3]** and **[6]** for the $1.9 \pm 0.1\text{Vp-p}$.

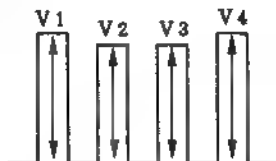


7. Write the memory by pressing **[MUTING]** then **[ENTER]**.
8. Return the following back to normal after adjustment.

PICTURE	.....	MAX
BRIGHT	.....	CENTER
COLOR	.....	CENTER
R OFF	.....	ON
G OFF	.....	ON
B OFF	.....	ON

SUB HUE, SUB COLOR ADJUSTMENT (SHUE, SCOL)

1. Input a color-bar signal.
2. Set to service adjustment mode.
3. Connect an oscilloscope to CN703 Pin③ (B OUT) of C board.
4. Select SHUE and SCOL with **[1]** and **[4]**.
5. Adjust with **[3]** and **[6]** for the $V1=V4$ (SCOR) and $V2=V3$ (SHUE).



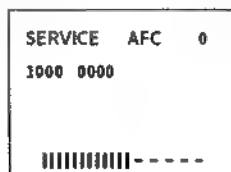
6. Increase the data of SCOL by 3 steps.
7. Write into the memory by pressing **MUTING** then **ENTER**.

SUB BARANCE ADJUSTMENT (SBAL)

1. Input a stereo signal.
2. Set to service adjustment mode.
3. Select SBAL with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for the best sound balance
5. Write into the memory by pressing **MUTING** then **ENTER**.

DISPLAY POSITION ADJUSTMENT (DISP)

1. Input a color-bar signal.
2. Set to service adjustment Mode.
3. Select DISP with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for the bar center.
5. Write the memory by pressing **MUTING** then **ENTER**.

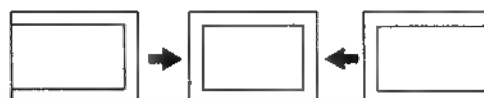


H.CENTER ADJUSTMENT (H POS)

Note: Perform this adjustment after H.FREQUENCY ADJUSTMENT (HFRE).

1. Input a cross-hatch signal.
2. Set the Service adjustment mode.
3. Select HPOS with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** to the best horizontal center.
5. Write into the memory by pressing **MUTING** then **ENTER**.

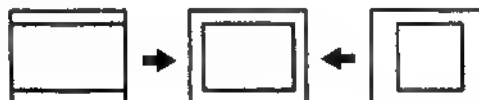
H. CENTER (HPOS)



H.SIZE ADJUSTMENT (HSIZ)

1. Input a cross-hatch signal.
2. Set to service adjustment Mode.
3. Select HSIZ with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for best horizontal size.
5. Write into the memory by pressing **MUTING** then **ENTER**.

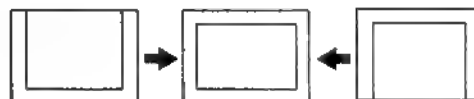
H. SIZE (HSIZ)



V.CENTER ADJUSTMENT (VPOS)

1. Input a cross-hatch signal.
2. Set to service adjustment Mode.
3. Select VPOS with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for the best vertical center.
5. Write into the memory by pressing **MUTING** then **ENTER**.

V. CENTER (VPOS)



V.SIZE ADJUSTMENT (VSIZ)

1. Input a cross-hatch signal.
2. Set to service adjustment Mode.
3. Select VSIZ with **1** and **4**.
4. Adjust with **3** and **6** for the best vertical size.
5. Write into the memory by pressing **MUTING** then **ENTER**.

V. SIZE (VSIZ)



V LINEARITY(VLIN), VS CORRECTION(VSCO), PIN AMP(PAMP), CORNER PIN(CPIN), AND PIN PHASE(PPHA) ADJUSTMENTS

1. Input a cross-hatch signal.
2. Set to Service adjustment Mode.
3. Select VLIN, VSCO, PAMP, CPIN, and PPHA with **1** and **4**.
4. Adjust with **3** and **6** for the best picture.
5. Write the memory by Pressing **MUTING** then **ENTER**.

V LINEARITY (VLIN)



VS CORRECTION (VSCO)



PIN AMP (PAMP)



CORNER PIN (CPIN)



PIN PHASE (PPHA)



5-3. P BOARD ADJUSTMENTS (KV-27V15/32V15 only)

P IN P H. POSITION (PHPO)

1. Input a color-bar signal
2. Set to Service adjustment Mode.
3. Select PHPO with **1** and **4**.
4. Adjust with **3** and **6** for the best balanced cent position at 4 corner P in P display position.
5. Write the memory by pressing **MUTING** then **ENTER**.

SECTION 6
DIAGRAMS

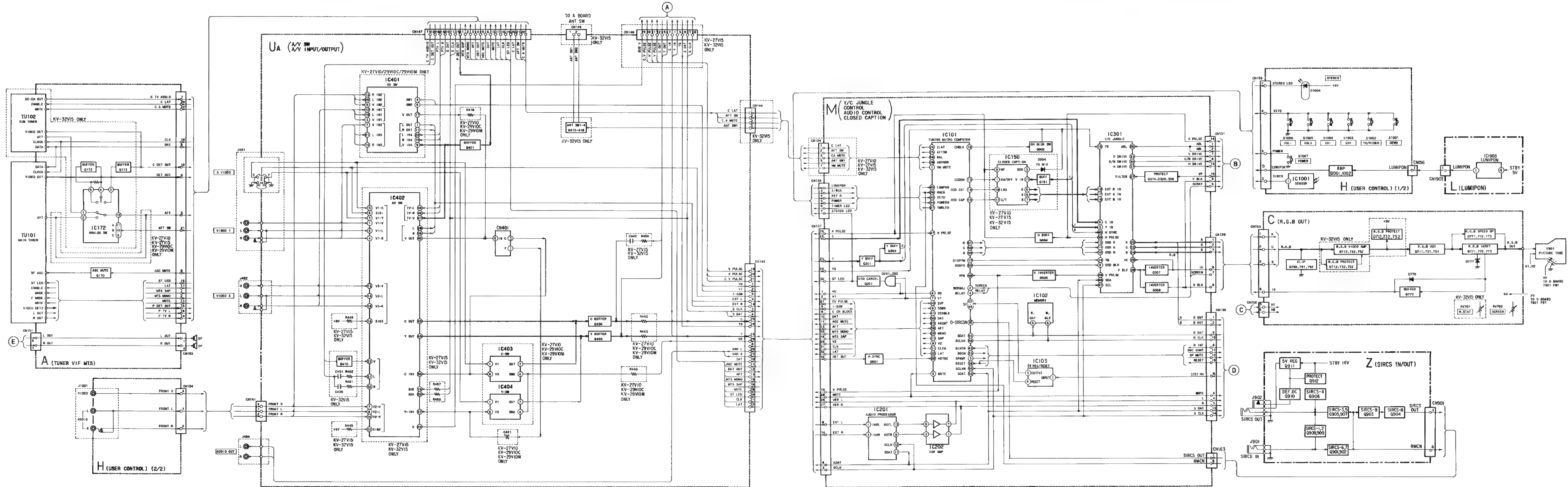
KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

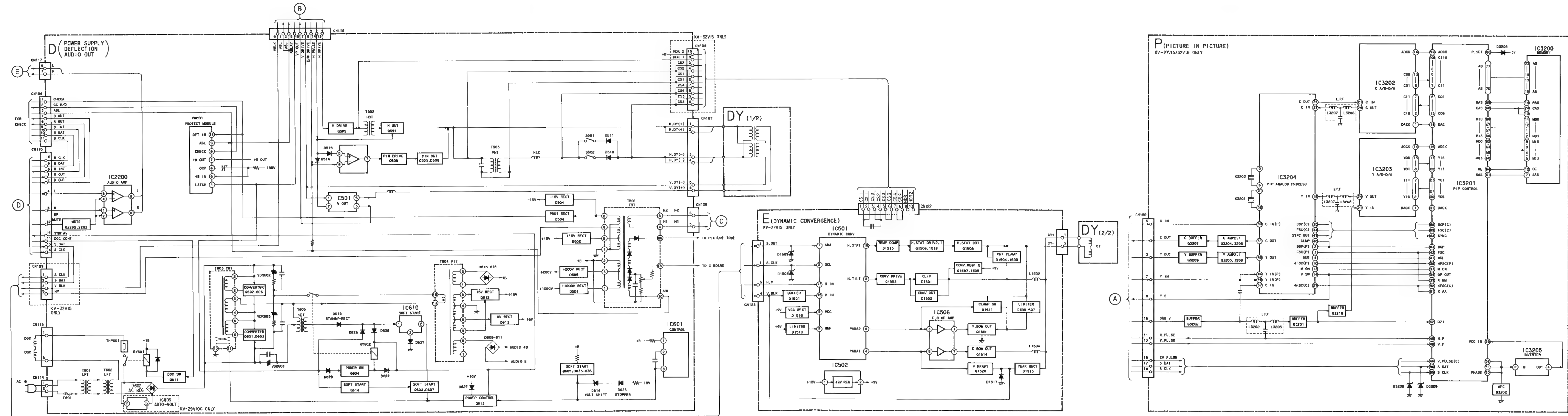
KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

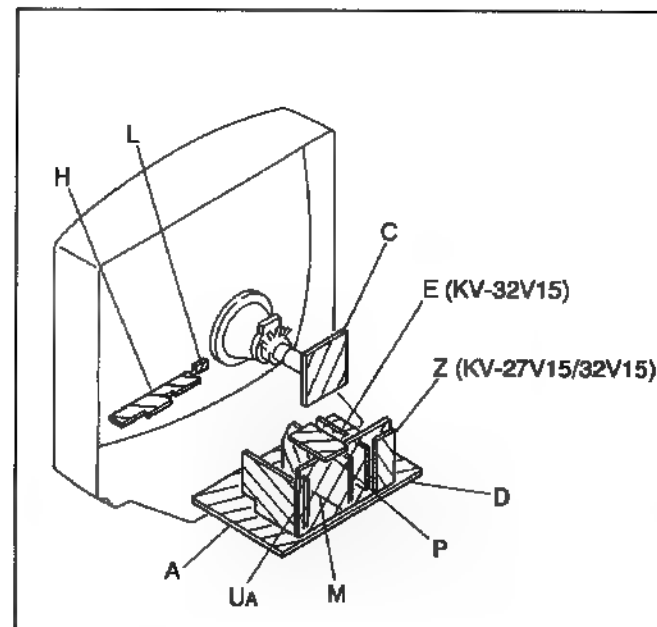
KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101



— 50 —



6-4. CIRCUIT BOARDS LOCATION



6-5. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

- Note:**
- All capacitors are in μF unless otherwise noted.
 - pF: μF 50WV or less are not indicated except for electrolytic and tantalums.
 - All electrolytics are in 50V unless otherwise specified.
 - Indication of resistance, which does not have one for rating electrical power, is as follows.
- Pitch: 5 mm
Rating electrical power 1/4W
- Chips resistors are 1/10W.
 - All resistors are in ohms.
 - k Ω =1000 Ω , M Ω =1000K Ω .
 - nonflammable resistor.
 - fusible resistor.
 - internal component.
 - panel designation, and adjustment for repair.
 - All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
 - earth-ground. (cool)
 - earth-chassis. (hot)
 - The components identified by \square in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
 - When replacing components identified by \square , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by \square and repeat the adjustment until the specified value is achieved. (Refer to R511 and R524 on page 34, 35)
 - When replacing the part in below table be sure to perform the related adjustment.

Part replaced (\square)	Adjustment (\square)
PM501, R511, R632, R645, R650, R338 D BOARD M BOARD	HOLD-DOWN (R511)
IC801, PM501, D504, C598, R509, R524, R632, R635, R645, T501, R338 D BOARD M BOARD	HOLD-DOWN (R524)

- All voltages are in V.
- Voltage are dc with respect to ground unless otherwise noted.
- Readings are taken with a 10 M Ω digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerance.
- Circled numbers are waveform references.
- \square : B+ line.
- \square : B- line.
- \square : signal path.

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: *	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The symbol \square display is on the component side.

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

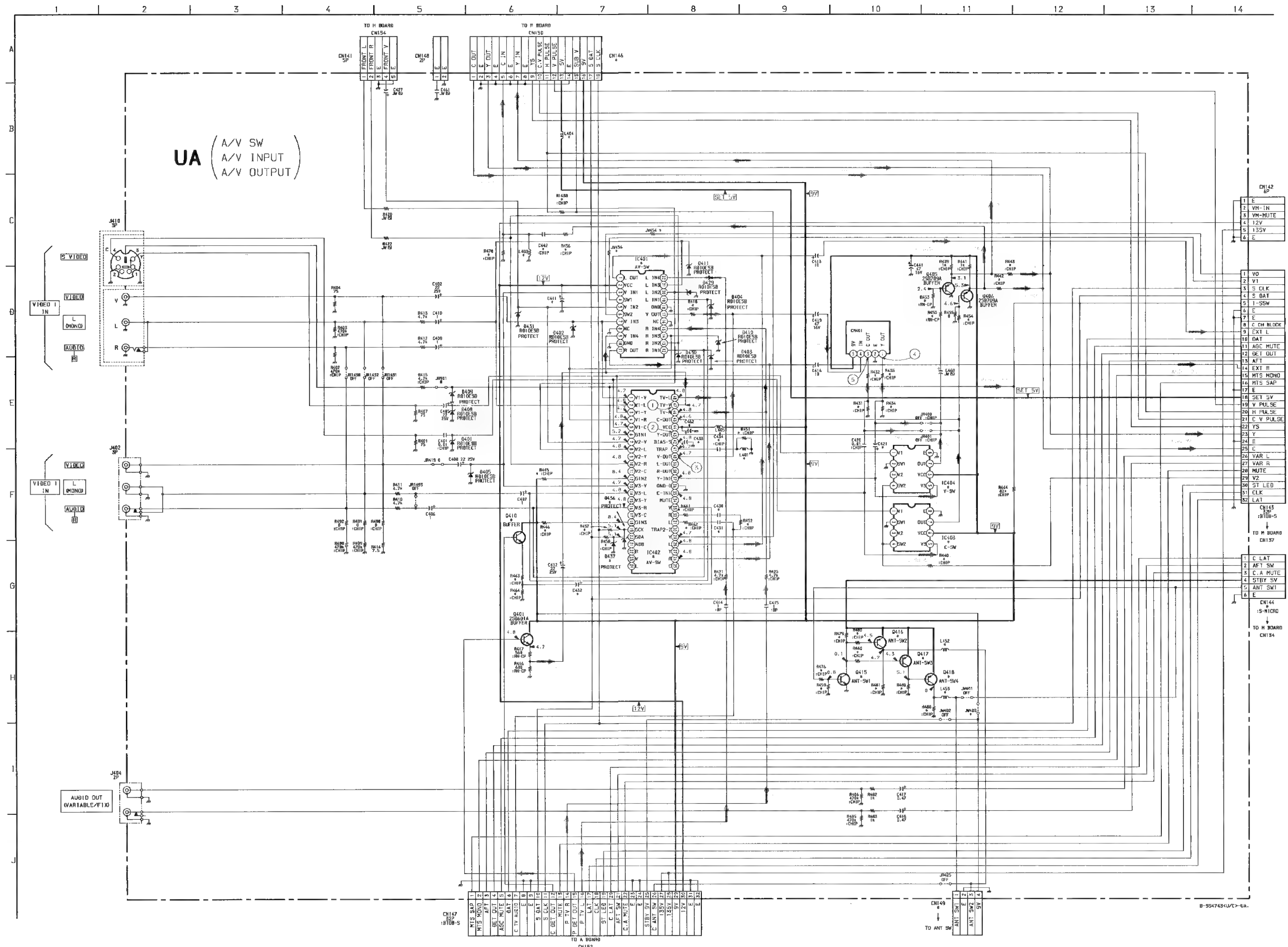
The symbol \square indicate fast operating fuse. Replace only with fuse of same rating as marked.

Note: Les composants identifiés par un trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Le symbole \square indique une fusible à action rapide. Doit être remplacée par une fusible de même valeur, comme marqué.

Schematic diagrams

UA board



— UA BOARD —

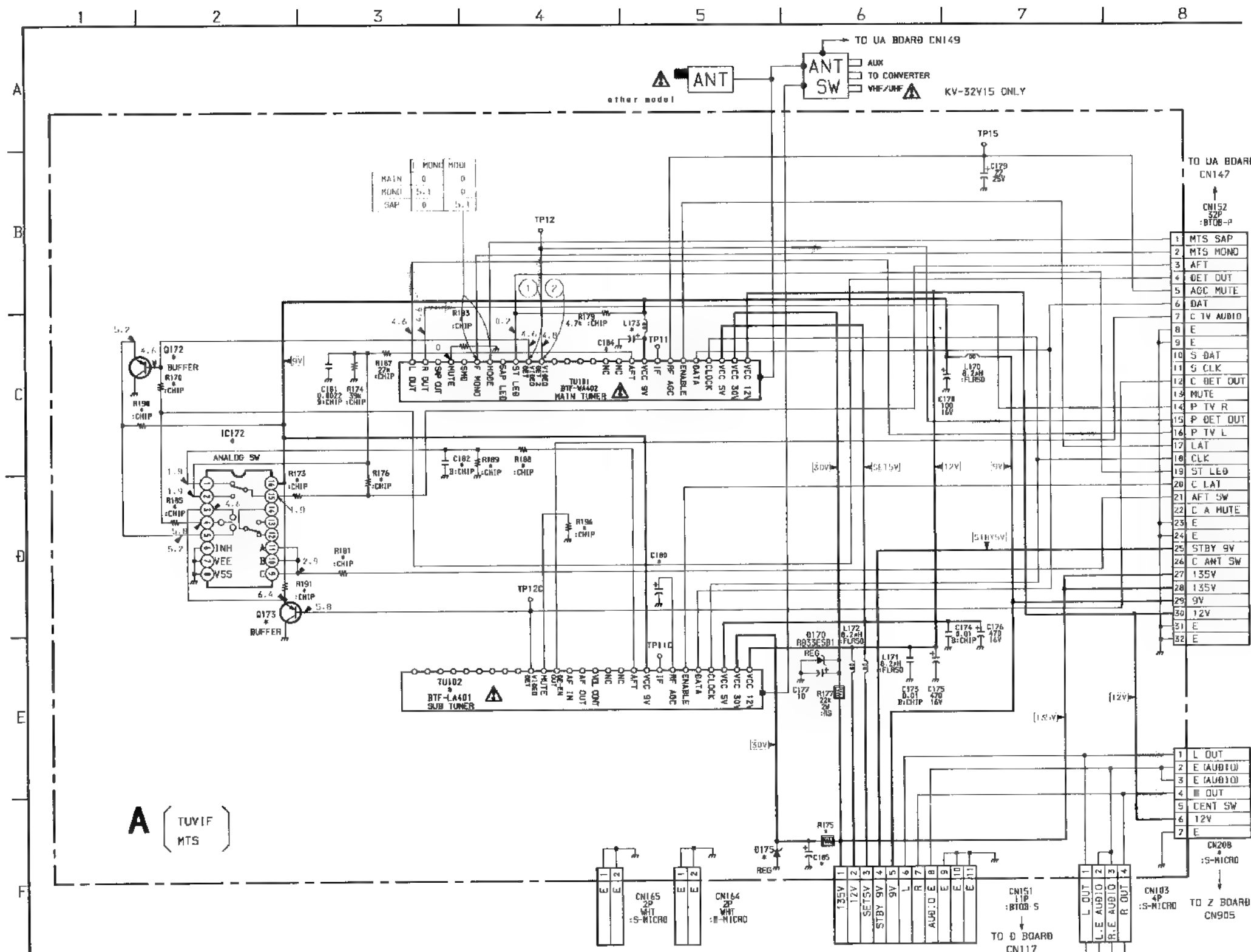
Ref	LOCATION	KV-27V10/27V15 /29V10C/29V10M	KV-32V15
C411	C-8	100 25V	—
C421	E-10	0.47	22 25V
C430	F-8	—	1
C431	F-8	—	1
C432	F-7	—	22 25V
C433	E-8	—	33 25V
C434	E-8	—	100P
C442	C-8	—	100P
C462	E-8	—	100 16V
CN142	C-14	—	2P
CN144	F-14	—	6P
CN146	A-7	—	18P
CN149	K-11	—	4P
D436	F-7	—	RD10ESB
D437	F-7	—	RD10ESB
IC401	C-7	M52470AP	—
IC402	E-7	—	CXA1545AS
IC403	F-10	MM1114XFF	—
IC404	E-10	MM1118XFF	—
JW403	J-11	—	10MM
JW454	C-8	10K	—
JW456	C-7	10K	—
L401	E-9	—	18 μ H
L403	C-8	—	33 μ H
L404	B-6	—	33 μ H
L405	E-8	—	JW (5)
L452	I-10	—	JW (5)
L453	J-10	—	JW (5)
Q410	F-6	—	2SD601A
Q415	I-8	—	2SD601A
Q416	I-9	—	2SB709A
Q417	I-10	—	2SB709A
Q418	I-10	—	2SB709A
R418	D-8	100	—
R413	D-10	680	1K
R432	D-10	680	0
R434	D-10	680	1K
R435	D-10	680	0
R440	F-10	100	—
R442	C-11	100	—
R443	C-11	100	—
R445	E-8	—	10K
R446	F-6	—	10K
R450	C-11	100	470
R451	E-9	—	4.7K
R452	F-9	—	100
R453	C-11	1.2K	580
R454	D-11	100	0
R456	C-6	—	470
R457	F-7	—	220
R458	F-7	—	220
R459	I-9	—	22K
R460	I-9	—	330
R461	F-8	—	4.7K
R462	F-8	—	4.7K
R463	F-6	—	680
R464	G-6	—	680
R476	I-9	—	22K
R478	C-8	—	470
R479	I-9	—	22K
R480	I-9	—	22K
R481	I-10	—	22K
R488	I-10	—	22K
R498	I-10	—	22K
R1438	C-6	—	22K

—: NOT MOUNT

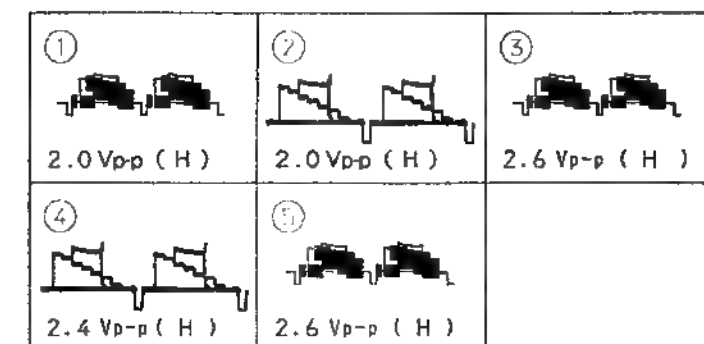
— A BOARD —

Ref	LOCATION	KV-27V10/27V15 /29V10C/29V10M	KV-32V15
C180	D-5	—	22MF / 25V
C182	D-3	—	0.0022MF
C184	D-5	—	10MF / 50V
C185	F-6	—	10MF / 50V
CN208	F-8	7P	—
D175	F-5	—	RD33ESB1
IC172	D-2	—	BU4053BF
L173	C-5	—	8.2 μ H
Q172	C-2	—	2SA1162-G
Q173	D-2	—	2SA1162-G
R170	C-2	100 1/10W	—
R173	D-3	—	0 1/10W
R175	F-6	—	22K 2W
R176	D-3	0 1/10W	—
R181	D-3	—	100 1/10W
R185	D-2	—	100 1/10W
R188	D-4	—	38K 1/10W
R189	D-4	—	27K 1/10W
R190	C-2	—	4.7K 1/10W
R191	D-3	—	4.7K 1/10W
R193	C-3	—	330 1/10W
R198	D-4	—	330 1/10W
TU102	E-4	—	BTF-LA401

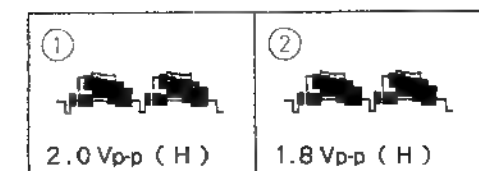
—: NOT MOUNT



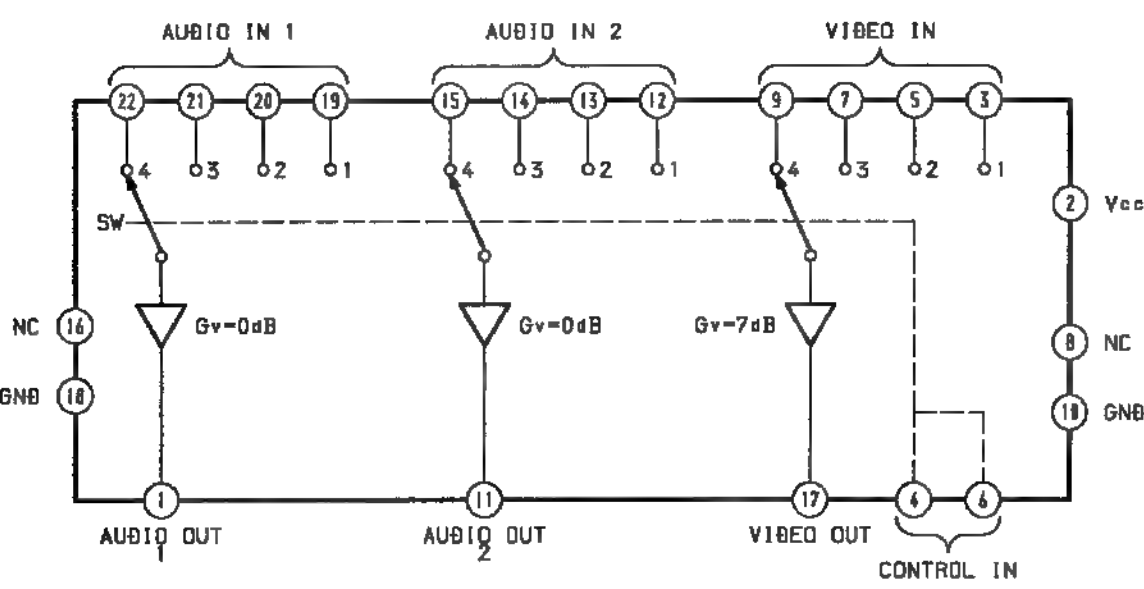
• UA BOARD WAVEFORMS



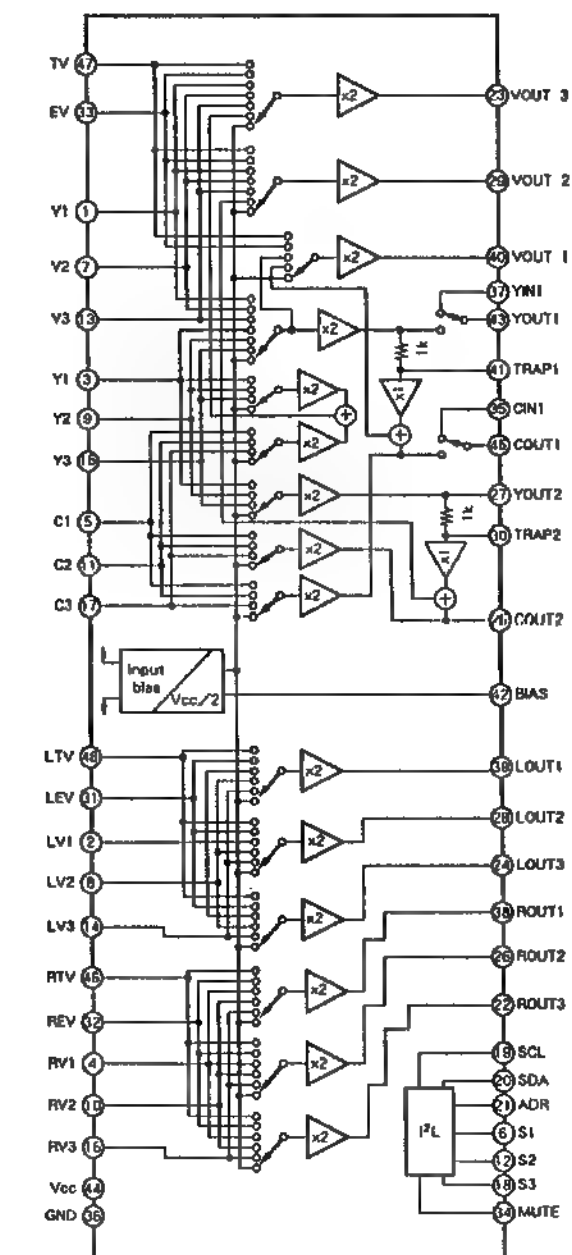
• A BOARD WAVEFORMS



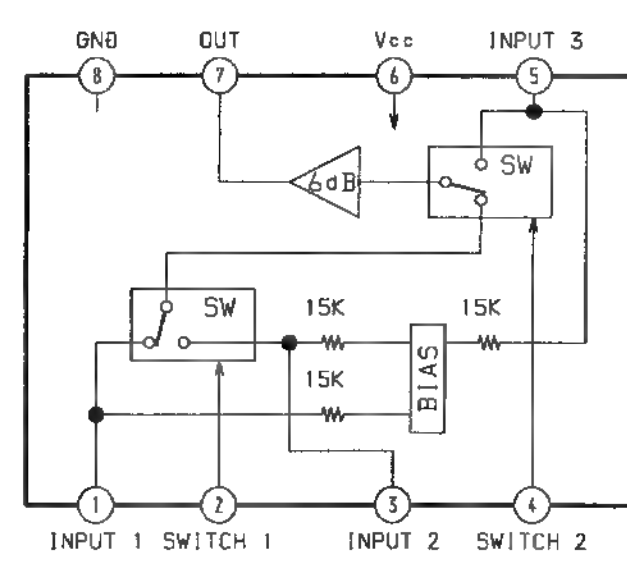
• UA Board IC401 M52470AP



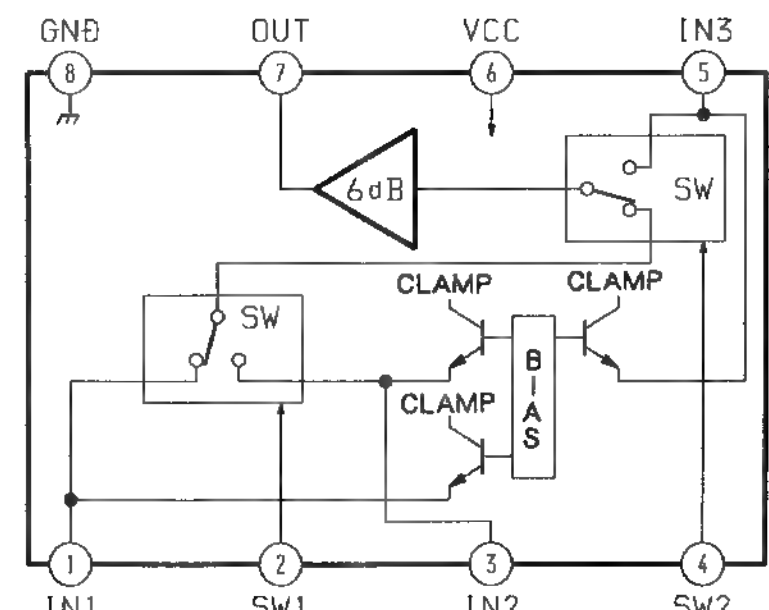
• UA Board IC402 CXA1545AS



• UA Board IC403 MM1114XFF

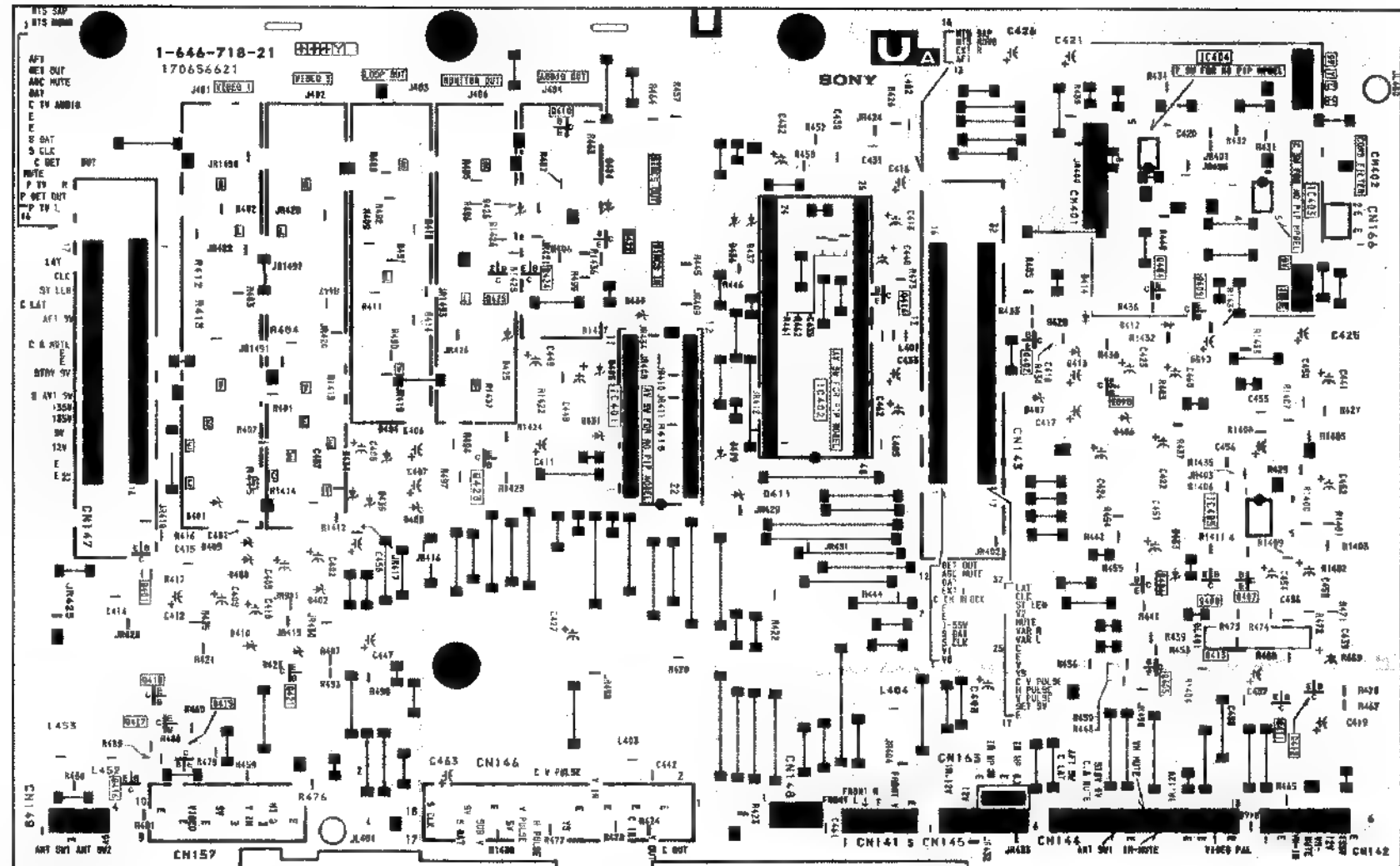


• UA Board IC404 MM1118XFF

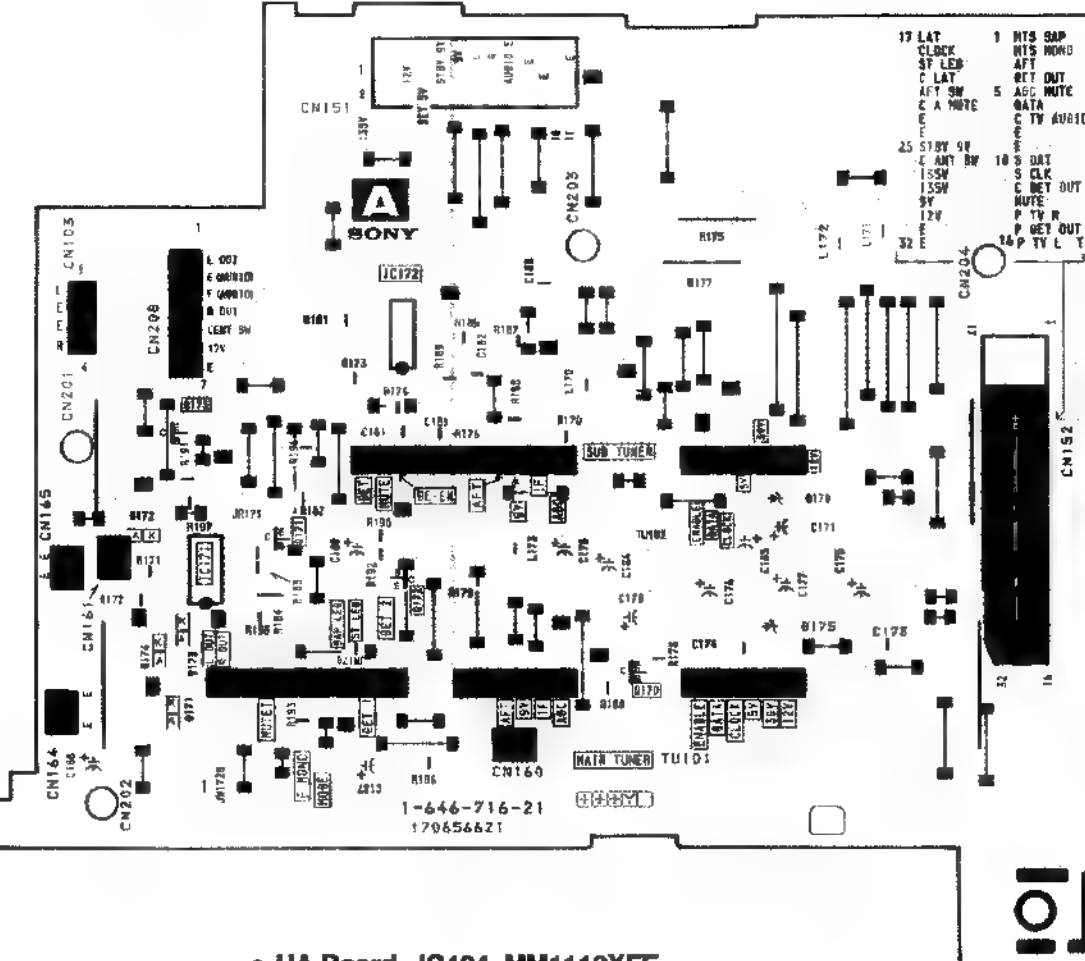


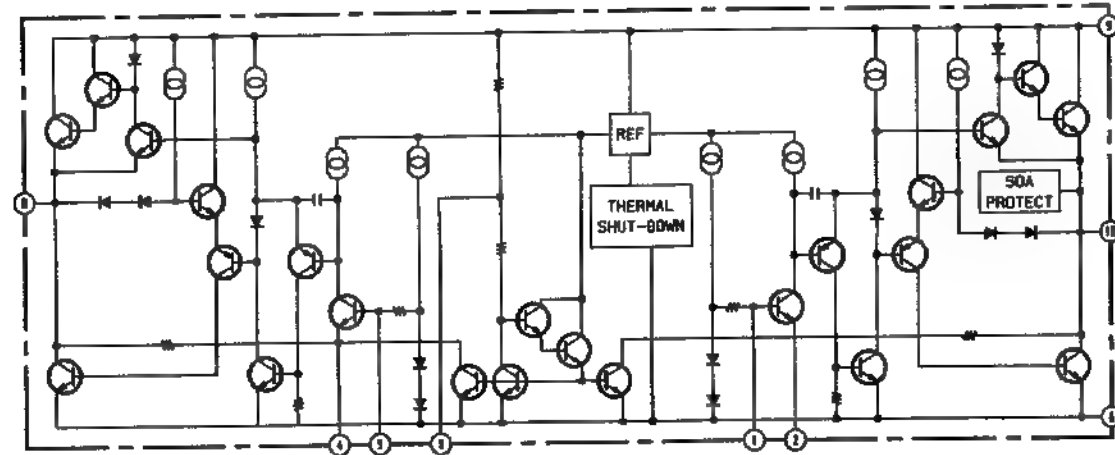
UA SW, INPUT, OUTPUT A TUNER, VIF, MTS

— UA BOARD — (Conductor Side)

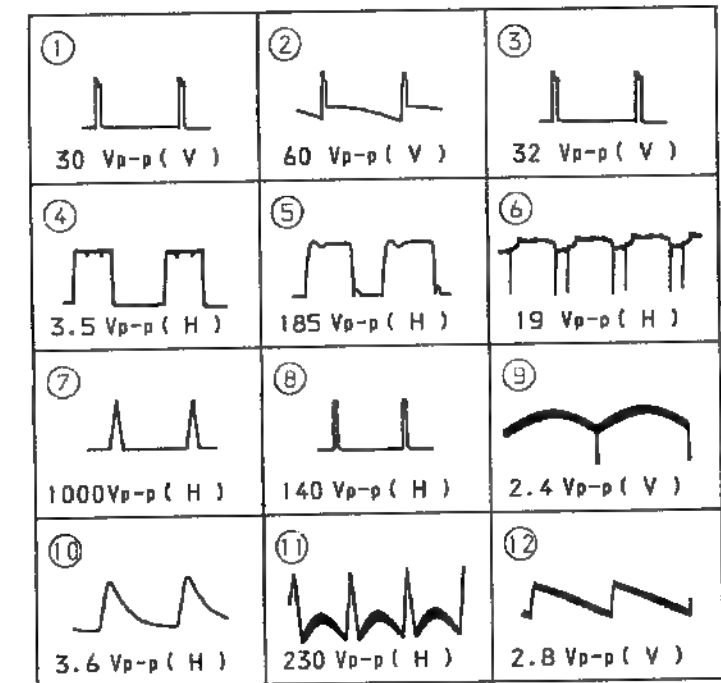


— A BOARD — (Conductor Side)





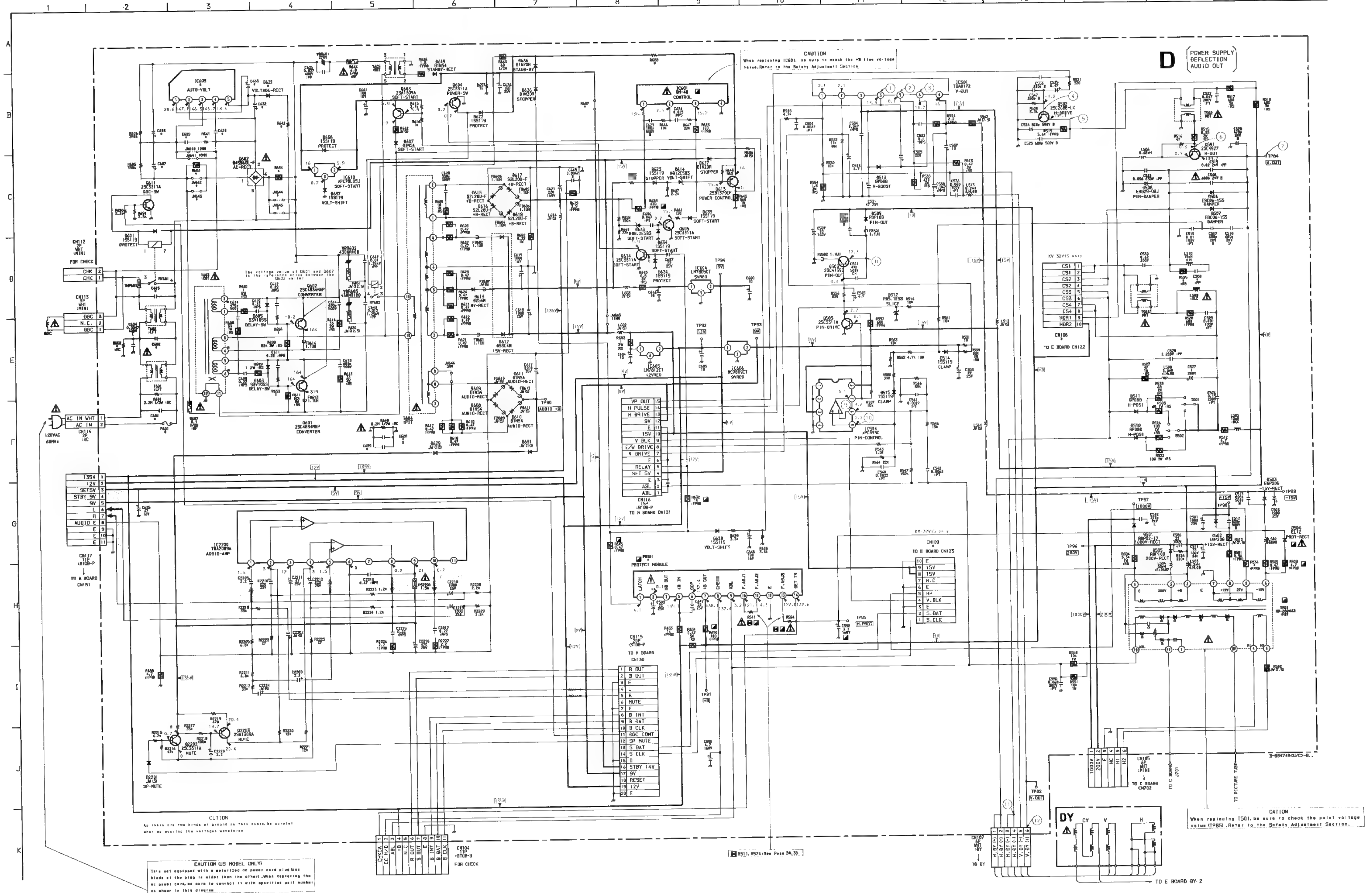
• D BOARD WAVEFORMS



— D BOARD —

Ref	LOCATION	KV-27V10 / 29V10M	KV-27V15	KV-28V10C	KV-32V15
C508	D-15	0.0022 / 630V	0.0022 / 630V	0.0022 / 630V	—
C801	E-2	0.47 / 125V	0.47 / 125V	0.47 / 300V	0.47 / 125V
C802	E-2	0.47 / 125V	0.47 / 125V	—	0.47 / 125V
C803	D-2	0.47 / 125V	0.47 / 125V	—	0.47 / 125V
C807	C-2	470 / 200V	470 / 200V	580 / 250V	470 / 200V
C808	B-2	470 / 200V	470 / 200V	580 / 250V	470 / 200V
C828	F-5	—	—	470P / 400V	—
C828	B-2	—	—	0.047 / 200V	—
C830	B-3	—	—	0.1	—
C832	B-3	—	—	2.2	—
C833	B-3	—	—	100	—
C839	F-5	470P / 400V	470P / 400V	—	470P / 400V
CH108	D-13	—	—	—	10P
CN109	H-12	—	—	—	10P
D621	B-4	—	—	RGPO2-17	—
F801	F-2	6.3A/125V	6.3A/125V	6.3A/250V	6.3A/125V
IC803	B-3	—	—	STR81159A	—
JW640	B-3	10MM	10MM	—	10MM
JW641	B-3	10MM	10MM	—	10MM
JW642	C-3	10MM	10MM	—	10MM
JW643	C-3	10MM	10MM	—	10MM
JW644	C-4	10MM	10MM	—	10MM
JW645	C-4	10MM	10MM	—	10MM
JW681	—	—	—	10MM	—
JW682	—	—	—	10MM	—
PM501	H-9	PM-38	PM-38	PM-38	PM-38
R525	D-15	47 / 2W	47 / 2W	47 / 2W	—
R536	H-15	—	—	—	4.7
R602	E-2	2.2M 1/2W	2.2M 1/2W	8.2M 1/4W	22M 1/2W
R641	B-3	—	—	4.7 1/4W	—
R642	B-4	—	—	2.2 1/4W	—
R683	C-3	—	—	1 10W	—
R684	C-4	—	—	1 10W	—
R687	B-7	6.8 / 1W	6.8 / 1W	JW(12.5)	6.8 / 1W

—: NOT MOUNT

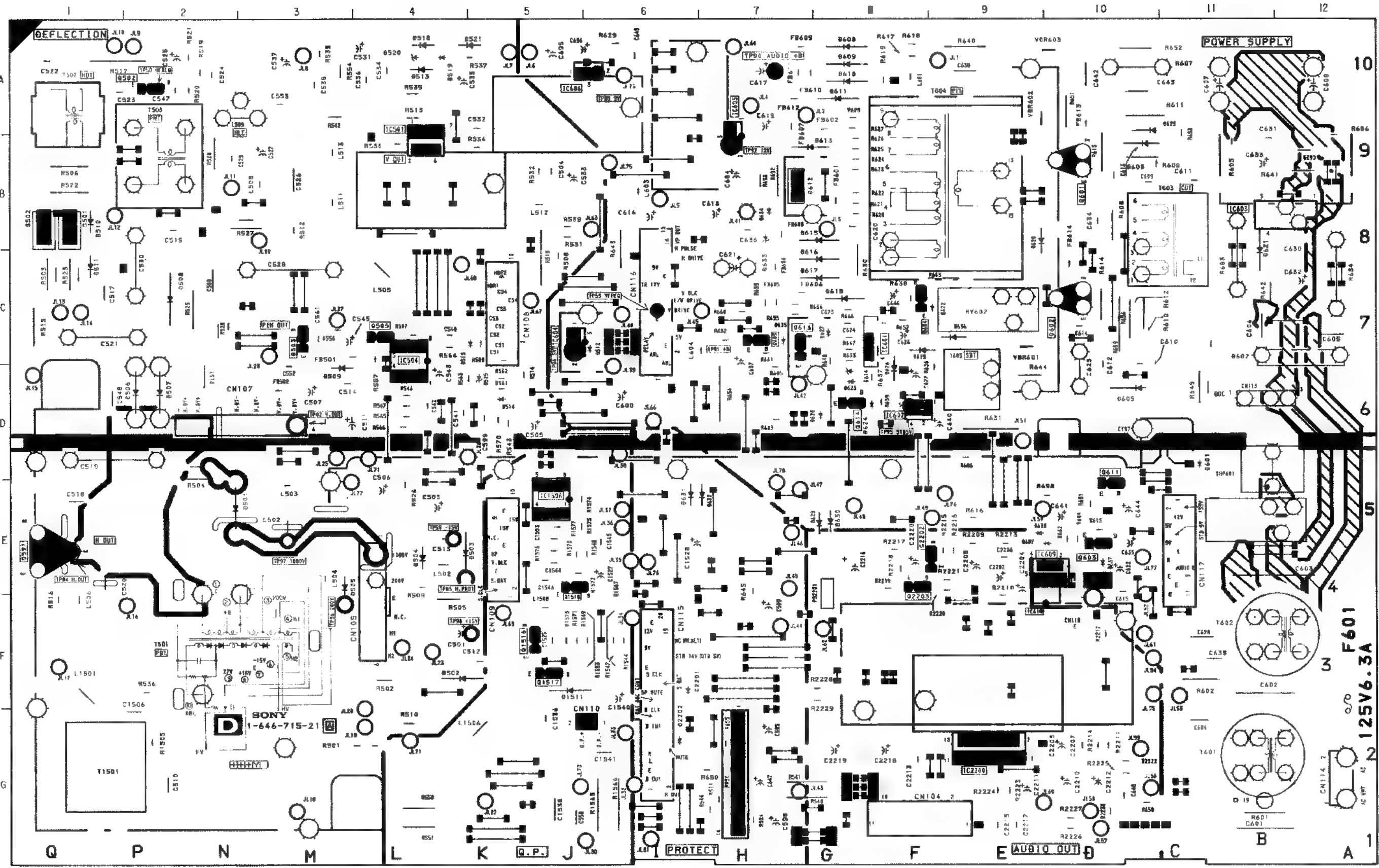


D POWER SUPPLY,
DEFLECTION,
AUDIO OUT

KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101 RM-CM101

KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101 RM-CM101

- D BOARD - (Conductor Side)



IC	
IC501	A-4
IC504	C-4
IC601	C-8
IC603	B-11
IC604	C-5
IC605	A-7
IC606	A-5
IC610	F-10
IC2200	G-9

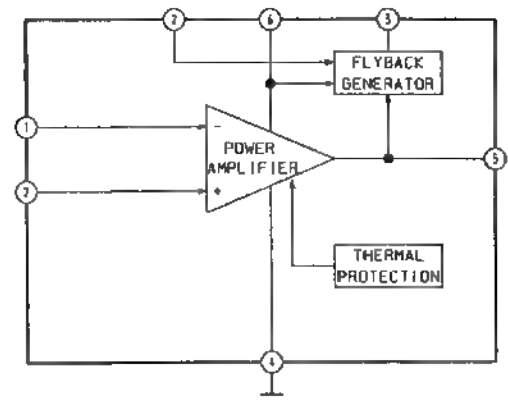
TRANSISTOR	
Q502	A-2
Q503	C-3
Q505	C-4
Q591	E-1
Q601	B-10
Q602	C-10
Q603	E-10
Q604	C-8
Q605	C-7
Q611	E-10
Q613	C-7
Q614	D-8
Q2202	E-8
Q2203	E-8

DIODE	
D501	E-3
D502	F-4
D503	E-4
D504	E-4
D505	E-3
D506	D-2
D507	D-2
D508	C-2
D509	D-3
D510	B-1

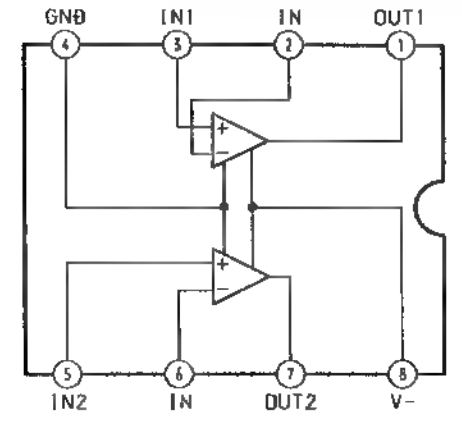
D511	C-1
D512	C-6
D513	A-4
D514	D-5
D515	C-4
D601	D-11
D602	C-11
D603	B-10
D605	D-10
D607	E-10
D608	A-8
D609	A-8
D610	A-8
D611	A-8
D612	B-7
D613	B-8
D614	D-8
D615	B-8
D616	C-8
D617	C-8
D618	C-8
D619	C-8
D622	C-9
D623	D-8
D624	D-8
D626	D-8
D627	C-8
D628	D-8
D633	B-7
D634	B-7
D635	C-8
D636	C-9
D637	E-10
D638	E-10

NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

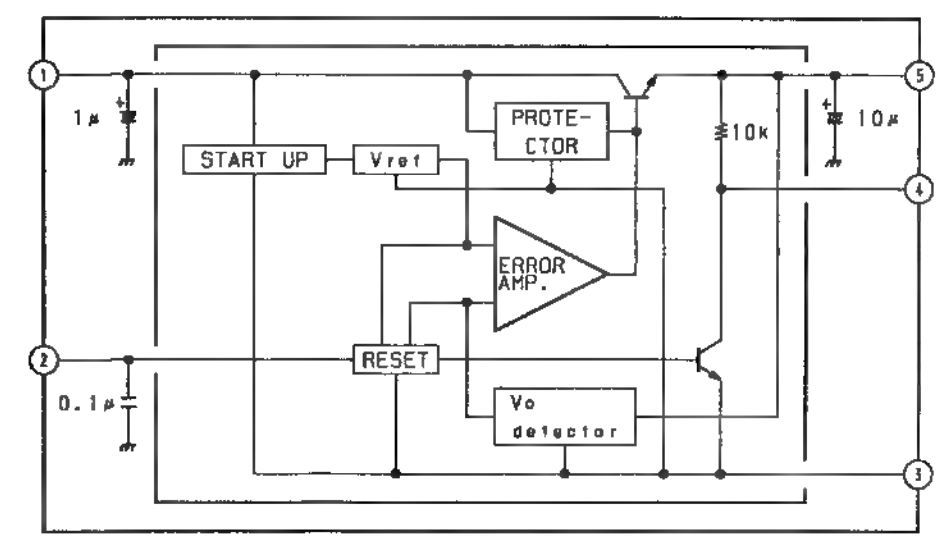
• D Board IC501 TDA8172



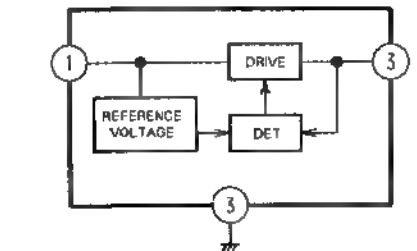
• D Board IC504 μ PC393C



• D Board IC602 L78LR05D

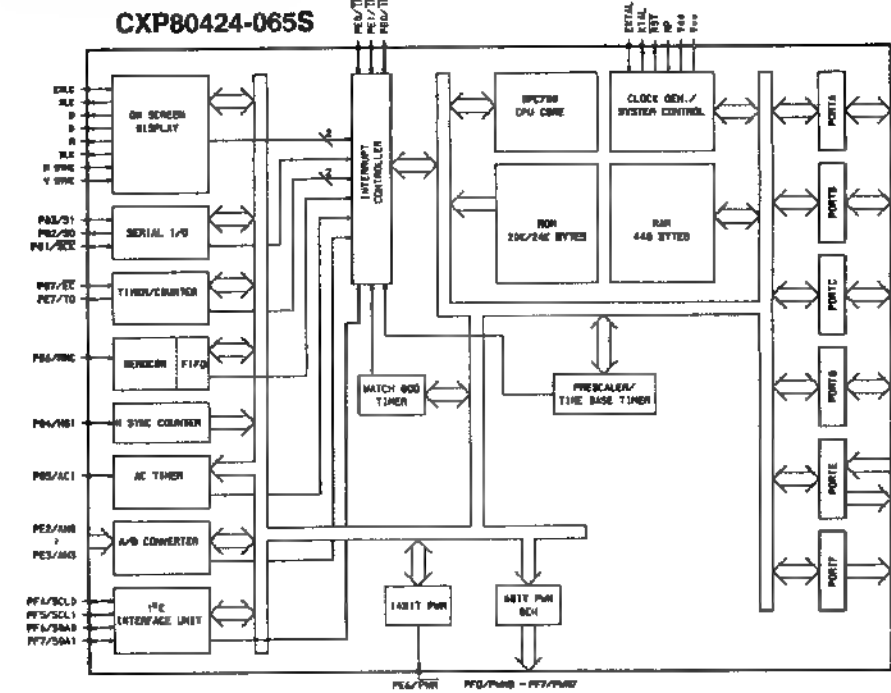


• D Board IC610 μ PC78L05J

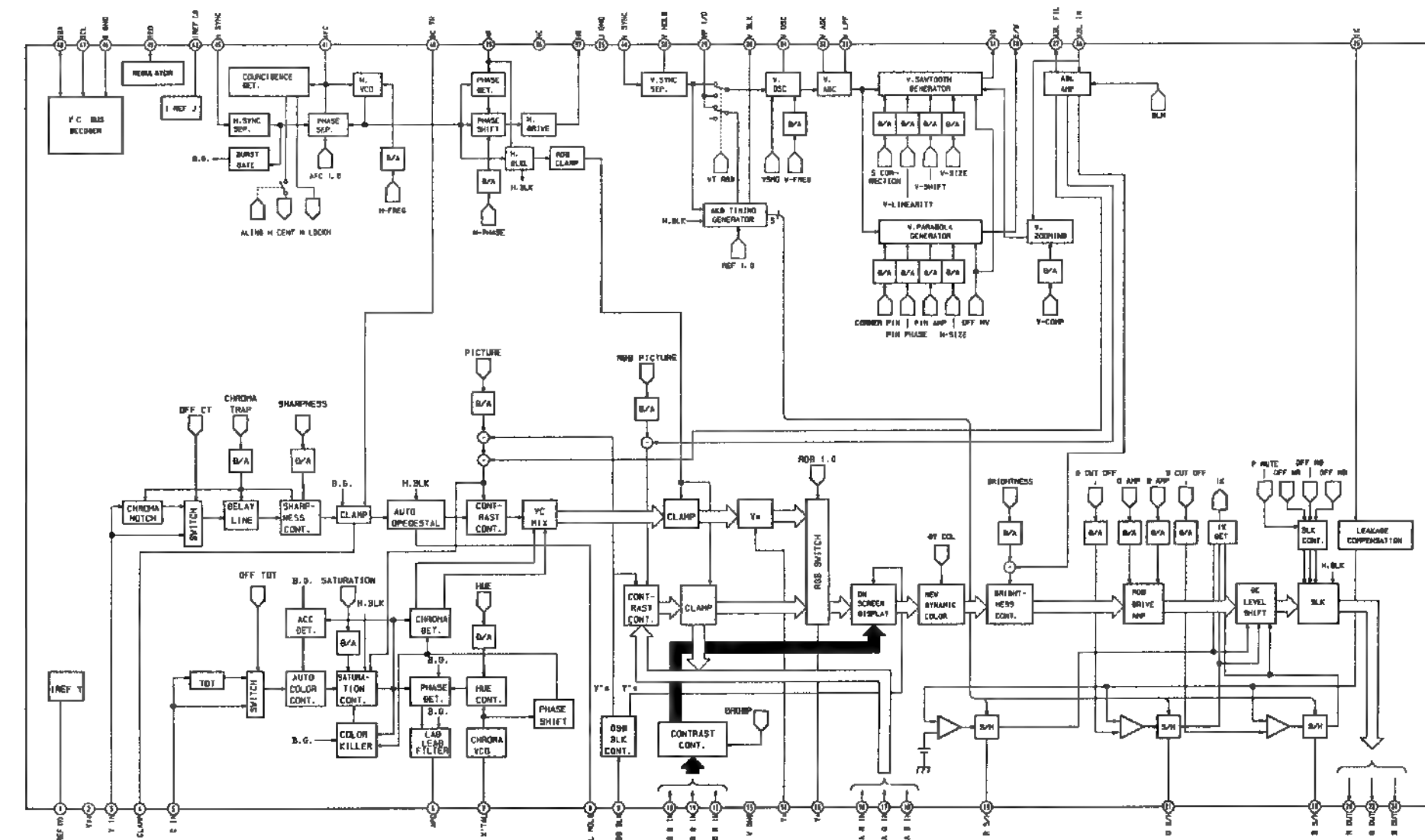


KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

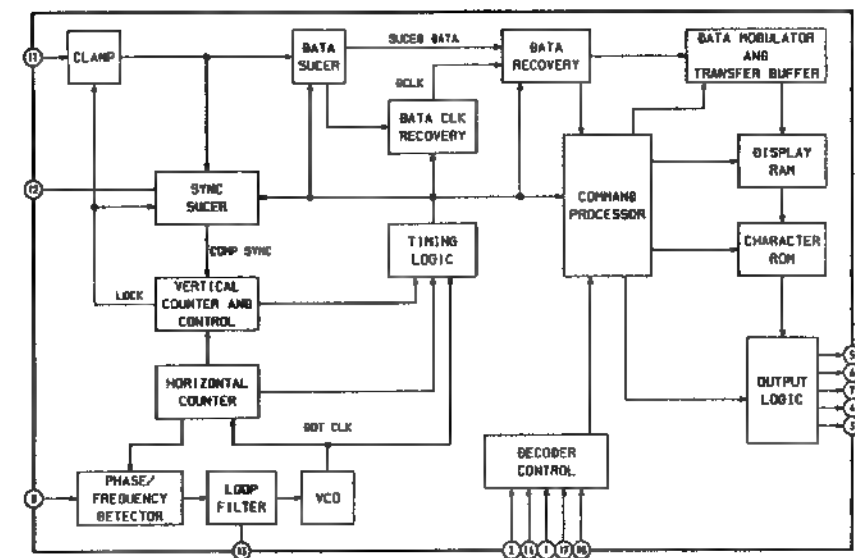
• M Board IC101



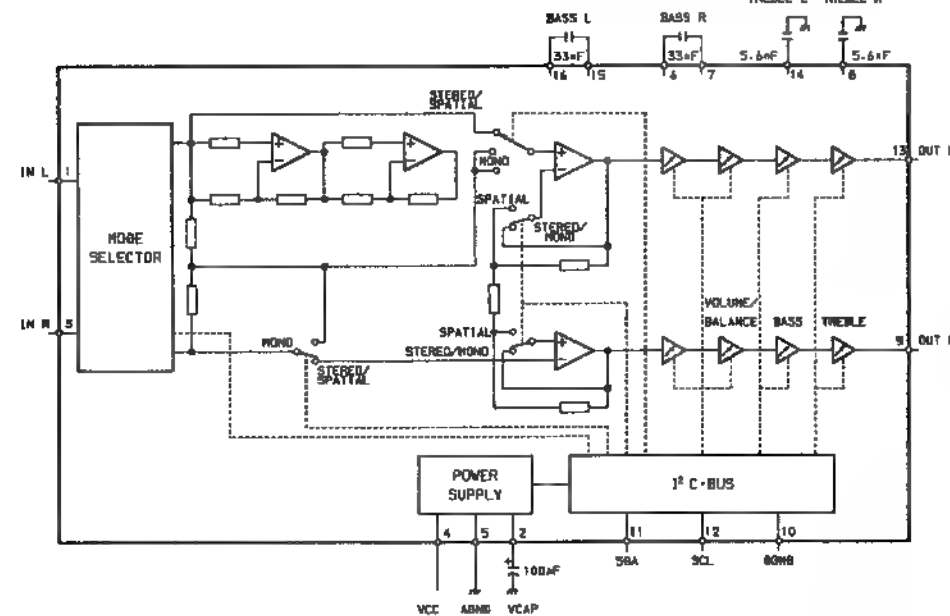
• M Board IC301 CXA1468AS



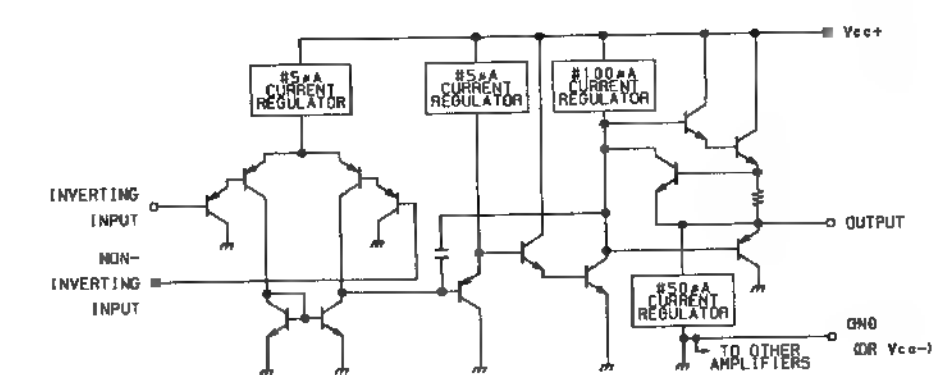
• M Board IC150 MC144143



• M Board IC201 TDA8424



• M Board IC202 LM358PS-T1



IC		DIODE	
IC101	C-6, H-6	D001	F-5
IC102	B-6, H-6	D002	F-5
IC103	D-4, G-4	D004	D-4
IC150	B-4, H-4	D005	G-6
IC201	B-2, H-2	D006	B-6, H-6
IC202	D-1	D007	B-7, H-7
IC301	B-3, G-3	D008	B-7, H-7
TRANSISTOR		D009	B-6, H-6
		D150	G-4
Q001	D-6	D201	A-1
Q004	G-6	D202	A-1
Q005	H-6	D205	C-2, G-2
Q151	G-5	D206	B-2, H-2
Q201	I-1	D301	B-4, H-4
Q301	A-2	D304	B-4, H-4
Q302	A-2		
Q308	D-3		

KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

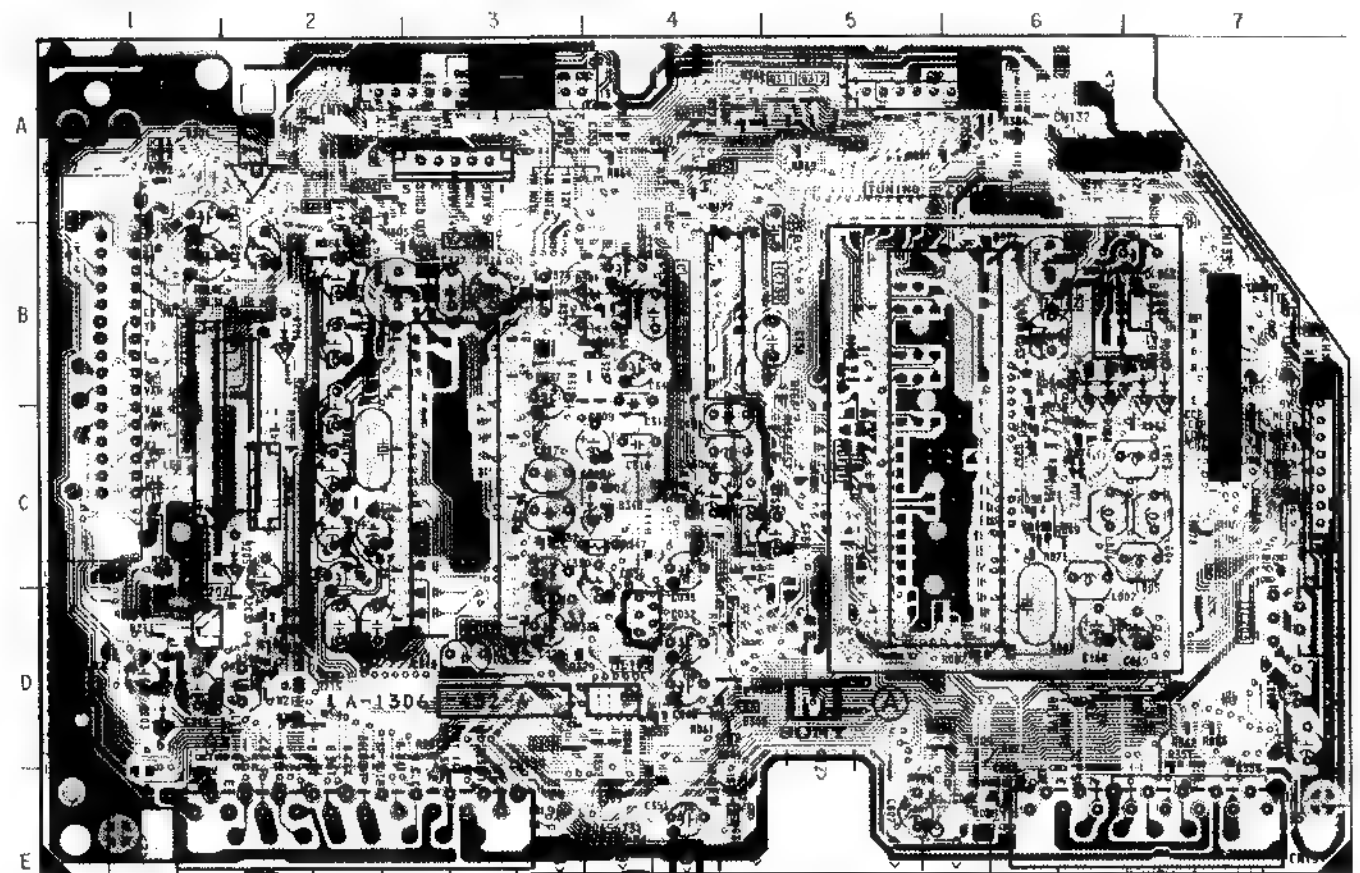
M Y/C/J,
CONTROL AUDIO,
CONTROL CLOSED CAPATION

Note:

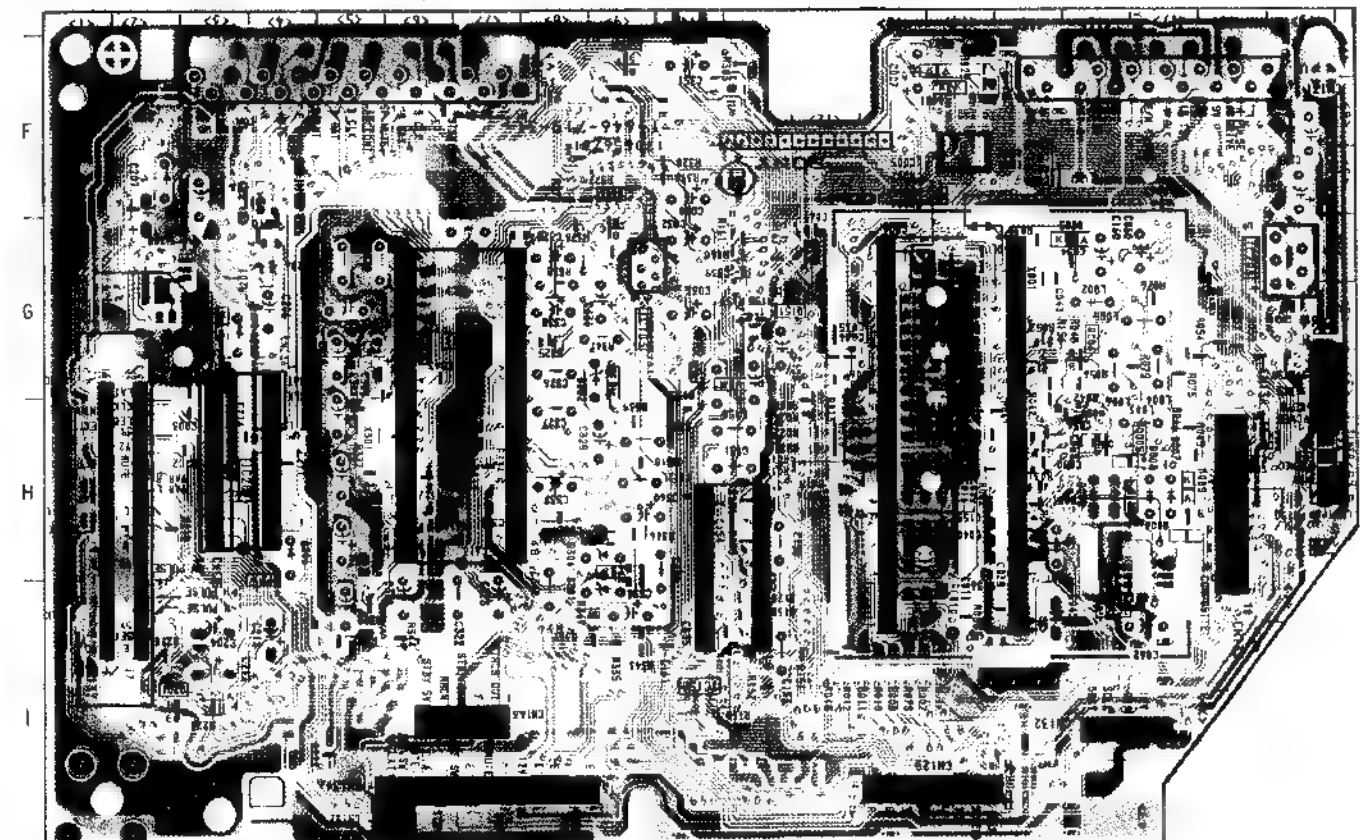
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

- M BOARD -

(Component Side)



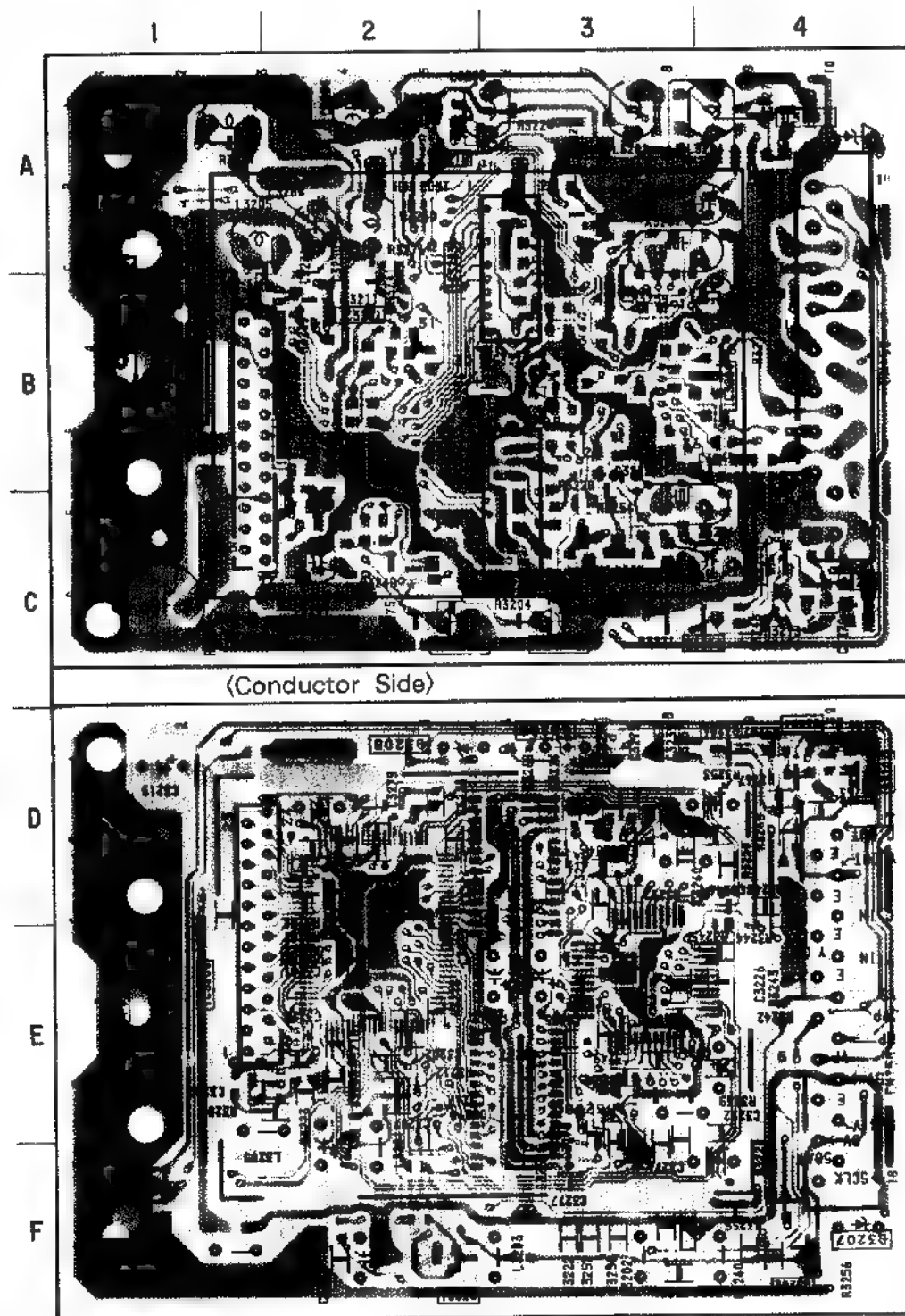
(Conductor Side)



P [PICTURE IN PICTURE] **H** [USER CONTROL]

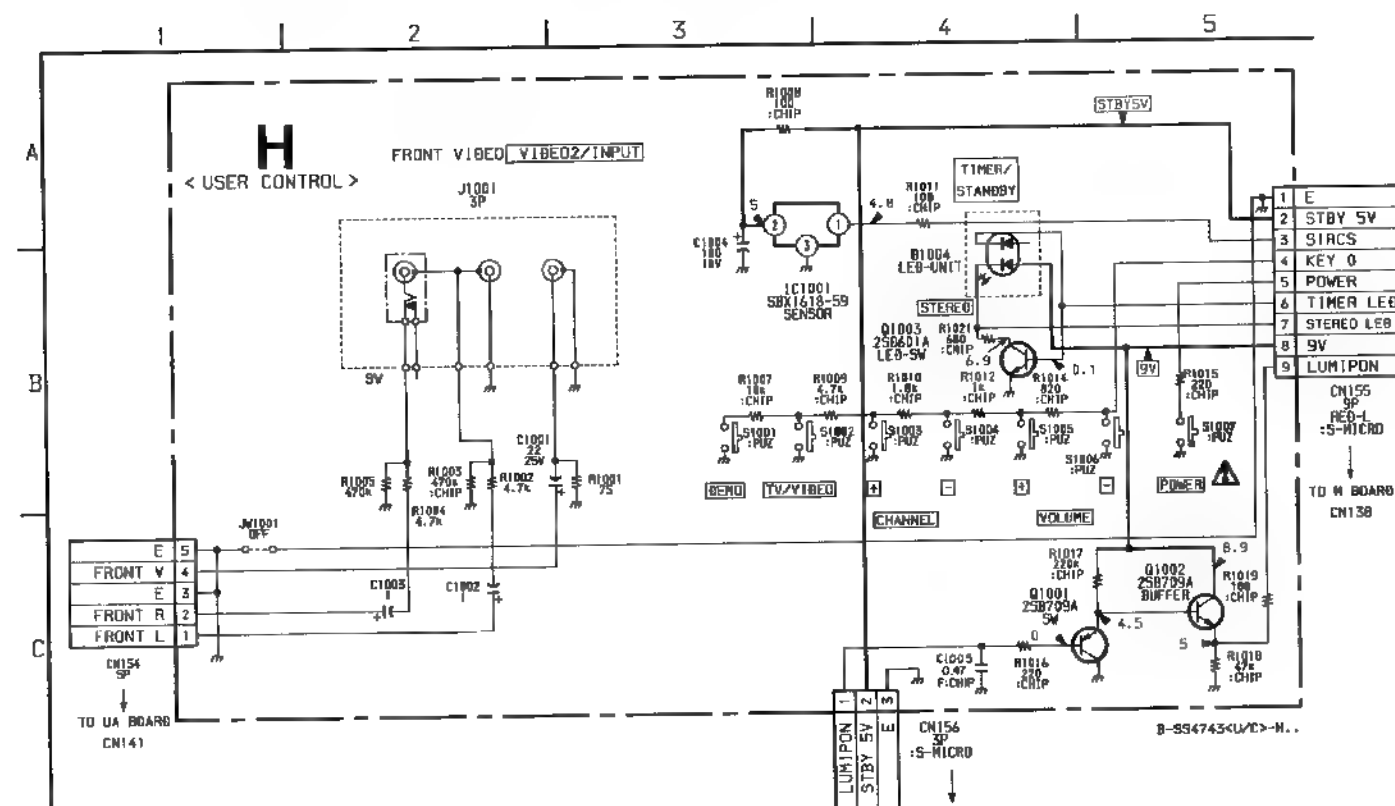
- P BOARD - (Component Side) (KV-27V15/32V15 only)

IC	
IC3200	B-1, E-1
IC3201	B-1
IC3202	C-3
IC3203	A-3
IC3204	B-3
IC3205	B-1
TRANSISTOR	
Q3201	F-2
Q3202	F-4
Q3203	C-4
Q3204	D-4
Q3206	D-4
Q3207	D-4
Q3208	C-4
Q3209	C-9
Q3210	A-2
DIODE	
D3202	B-1
D3203	D-2
D3208	C-2, D-2
D3209	C-3, D-3

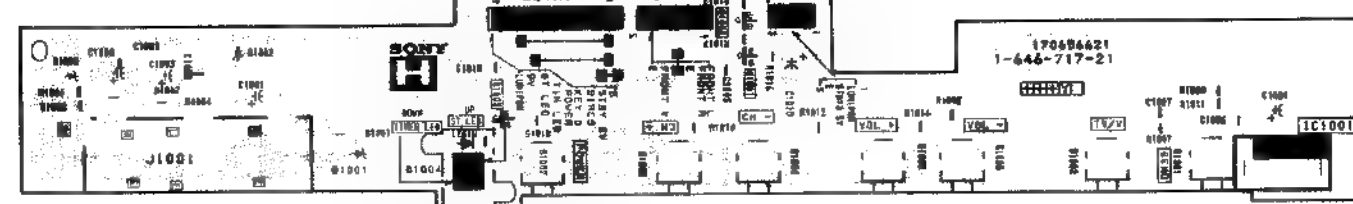


(Conductor Side)

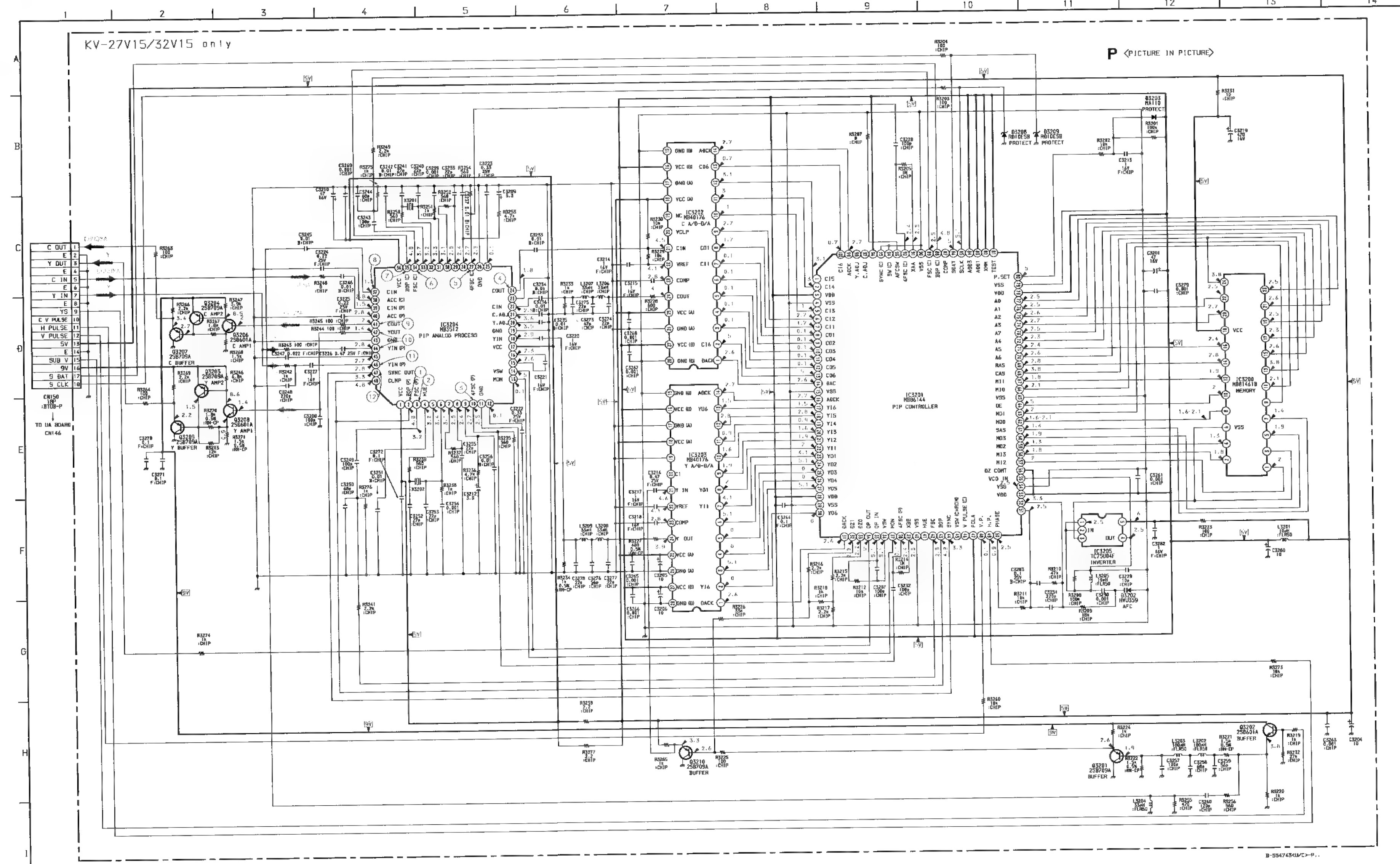
Note:
• : Pattern from the side which enables seeing.
• : Pattern of the rear side.



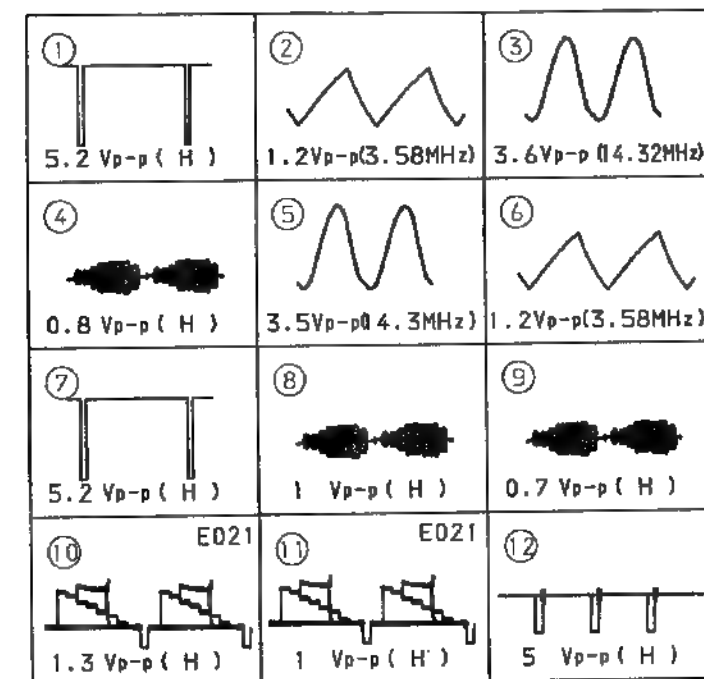
- H BOARD - (Conductor Side)



(KV-27V15/32V15 only)

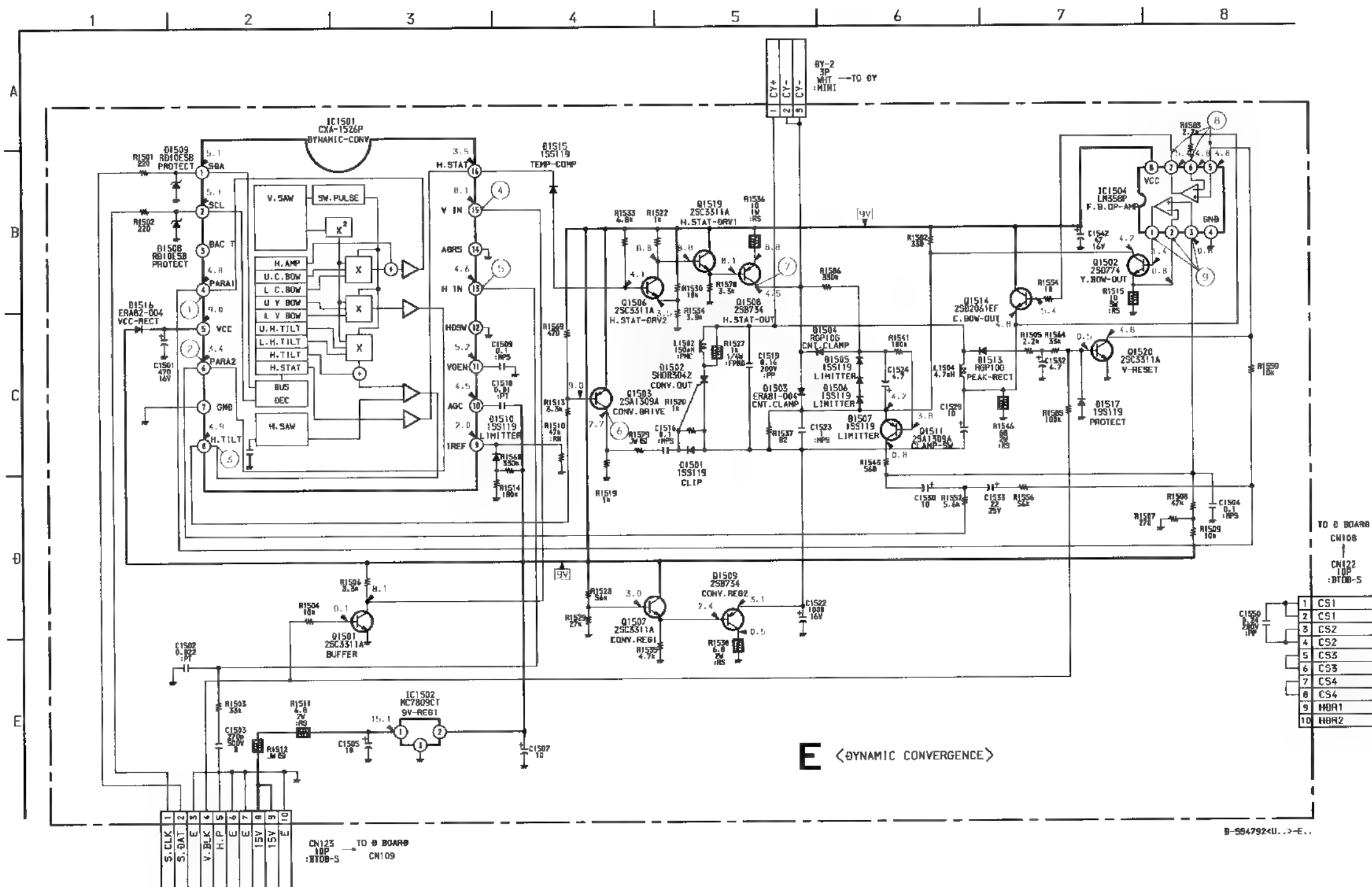


• P BOARD WAVEFORMS



KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

(KV-32V15 only)



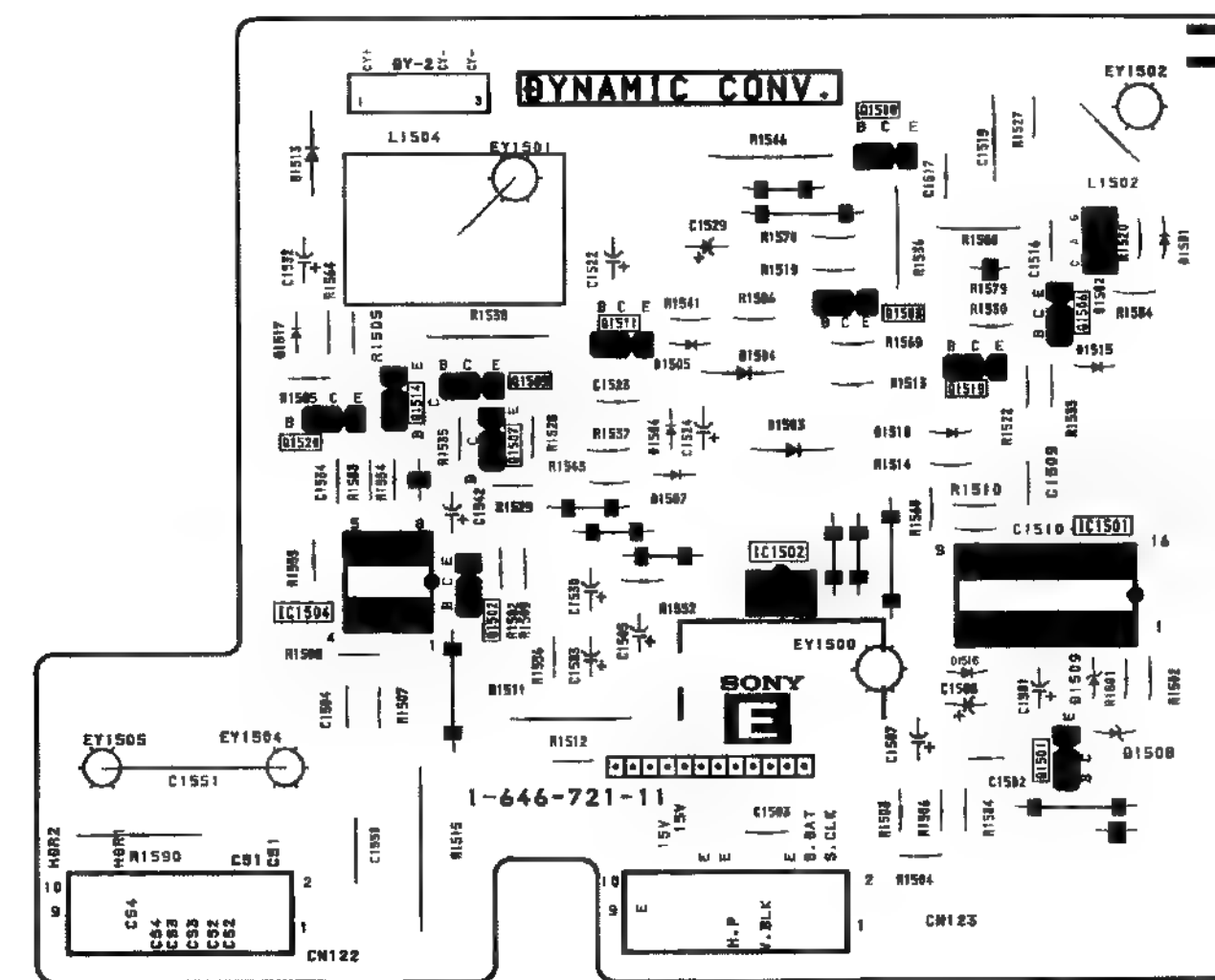
E <DYNAMIC CONVERGENCE>

B-584792-01...-E..

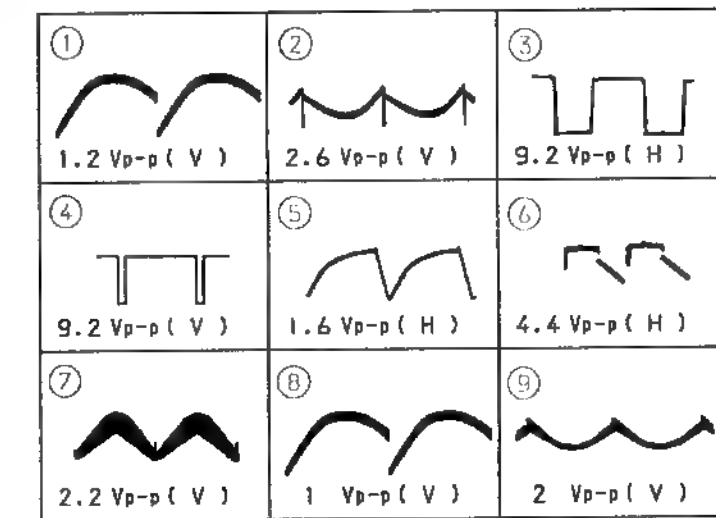
E [DYNAMIC CONVERGENCE]

- E BOARD - (Conductor Side)

(KV-32V15 only)



• E BOARD WAVEFORMS



KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

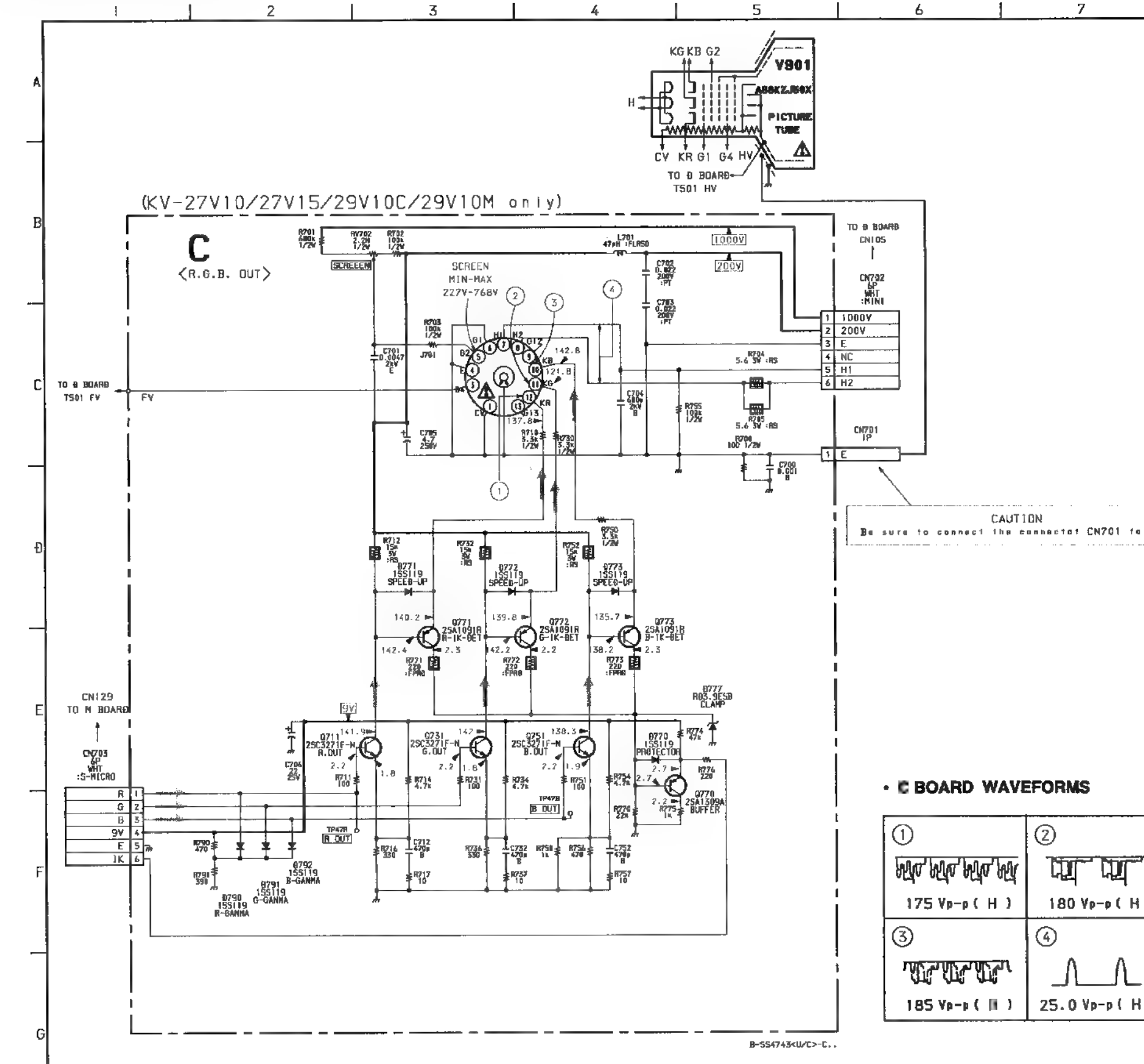
Schematic diagrams

← E board

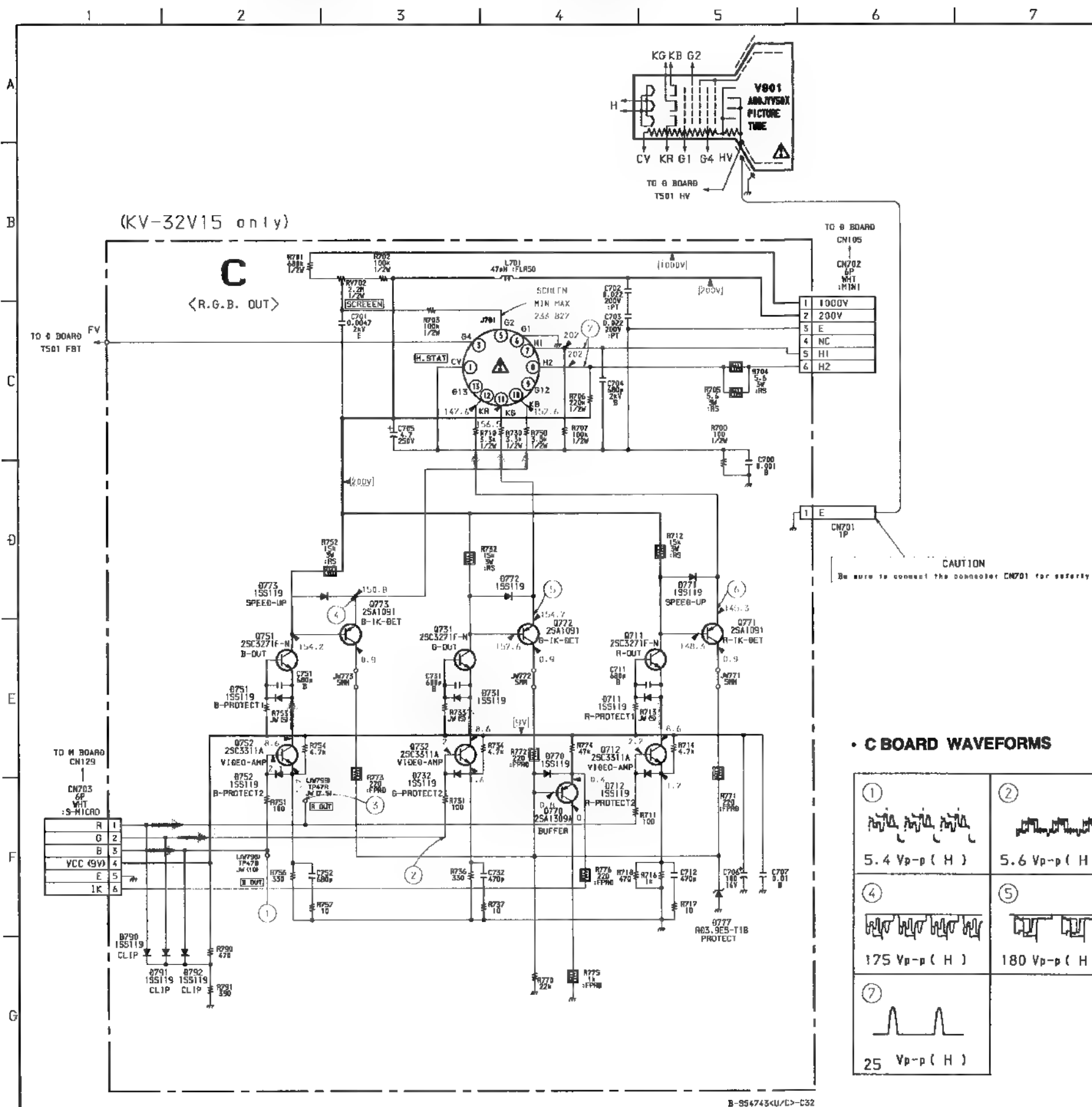
Schematic diagrams

C board →

(KV-27V10/27V15/29V10C/29V10M only)



(KV-32V15 only)

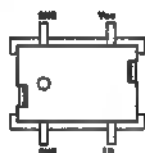


6-5. SEMICONDUCTORS

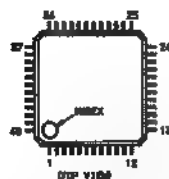
BU4053BF
CXA1315M



IS4555



MB3512PFQ-G-BND-EF



SI-3120C

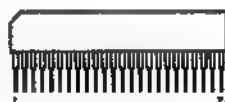


CXA1213BS
CXA1465AS
CXA1545AS

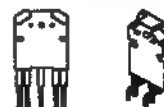


LM358P
ST24C02AB1
ST24C01B1
#PC358C
#PC393C
24C02A1/P

MB81461B-12RS-PSZ



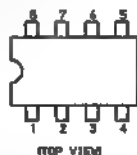
STR81159A



TC7SU04F



CXA1526P
MB40176PF-G-BND-EF



MB86144BPF-G-BND



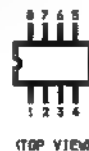
T0A2009A
T0A7262



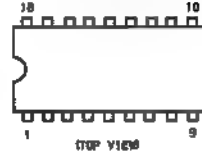
CXP80424-SV4782
CXP80424-SV4789
CXP85228-SV4745



LM358PS
MM1114XFF
MM1118XFF



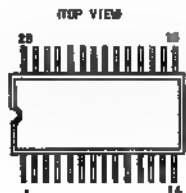
MC144143P1



T0A8172



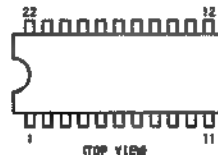
CXP80424-0775



LM7805CT
LM7812CT
MC7809CT
NJM78M09FA
NJM7812FA



M52470AP
M52470P



T0A8424



0M-48
PM-38
PM-39



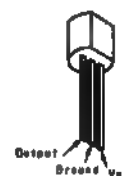
L78LR050-MA



NJM78L05A



#PC78L05J



SBX1618-H9
SBX1618-S1



2SA1091-0
2SA1091-R
2SC2551-0



2SA1162G
2SB709A
2SB601A



2SA1175-HFE
2SA1309A
2SC2785-HFE
2SC3311A



2SA1306A-Y



2SB1370-EF
2SC3298A-Y
2SC4159-E
2SC4793
2SB2012
2SB2061



2SB733
2SB734
2SC3733
2SB774



2SC2611
2SC2688-LK
2SC3271F-N



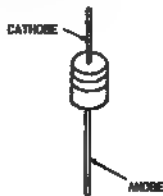
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2SC4927-01
2SC4927-02



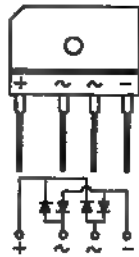
01NS4
01N20R
ERA82-004TP
ERA83-006
ERA85-009
R010ESB
R010ESB1
R010ESB2
R012ESB3
R013ESB2
R03.3ESB2
R03.9ESB2
R033ESB1
R039ESB4
R05.1ESB
R05.1ESB1
R06.2ESB2
R08.2ESB3
R09.1ESB1
R09.1ESL
1SS119



02S4MF
02S4MTA1



04SB60L



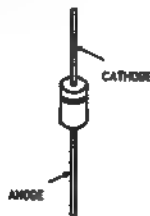
05SC4M



EGP20G
EL1Z
GP080
RGP02-17EL-6433
RGP10GPKG3
RGP10GPKG23
1SS83



ERA81-004
ERA83-006
ERC06-15S
S2L20UF
S3V10SS



ER029-08J



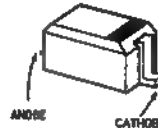
ES1F-LF-G2



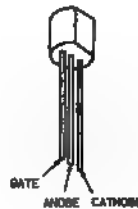
GP080PKG3



HVU359TRF
MA110
1T33



SH0R3042



SECTION 7 EXPLODED VIEWS

NOTE:

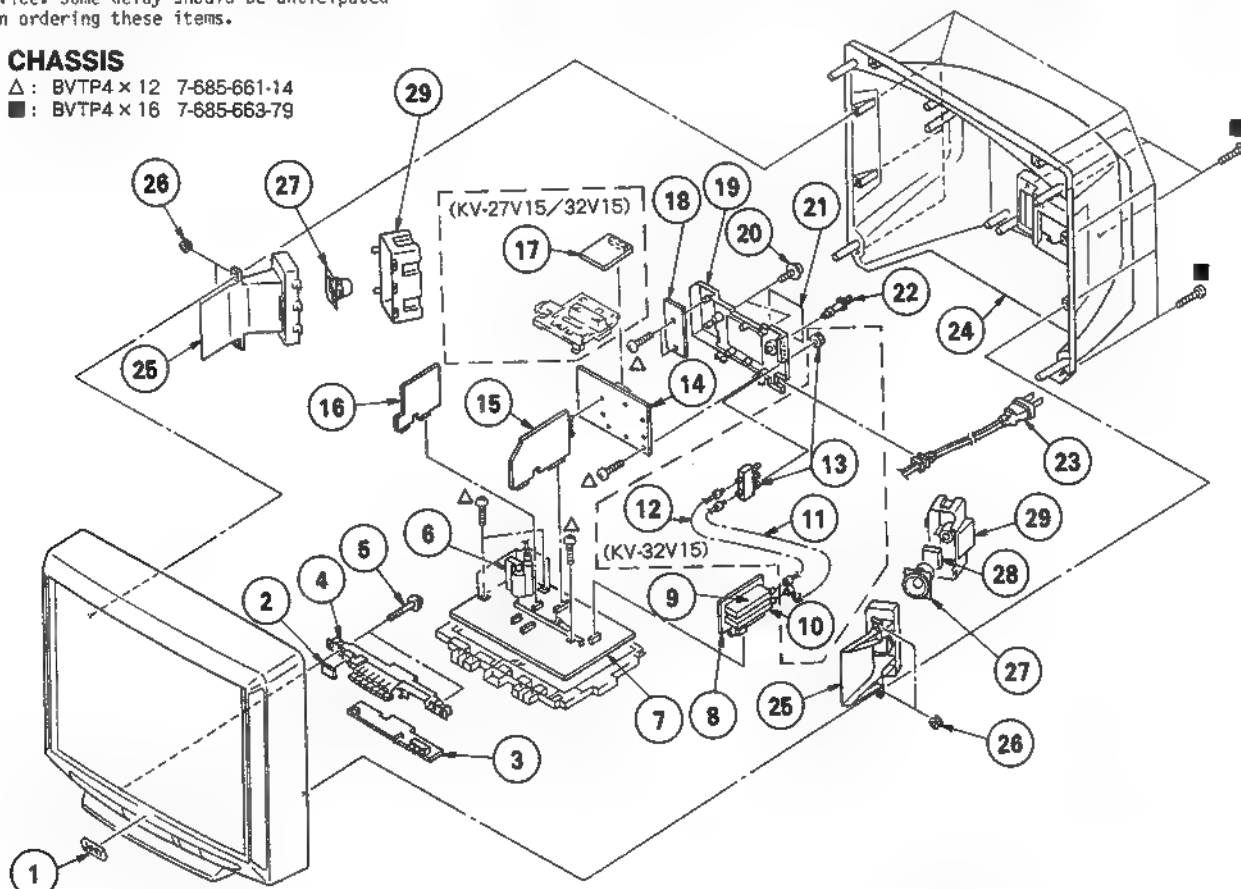
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

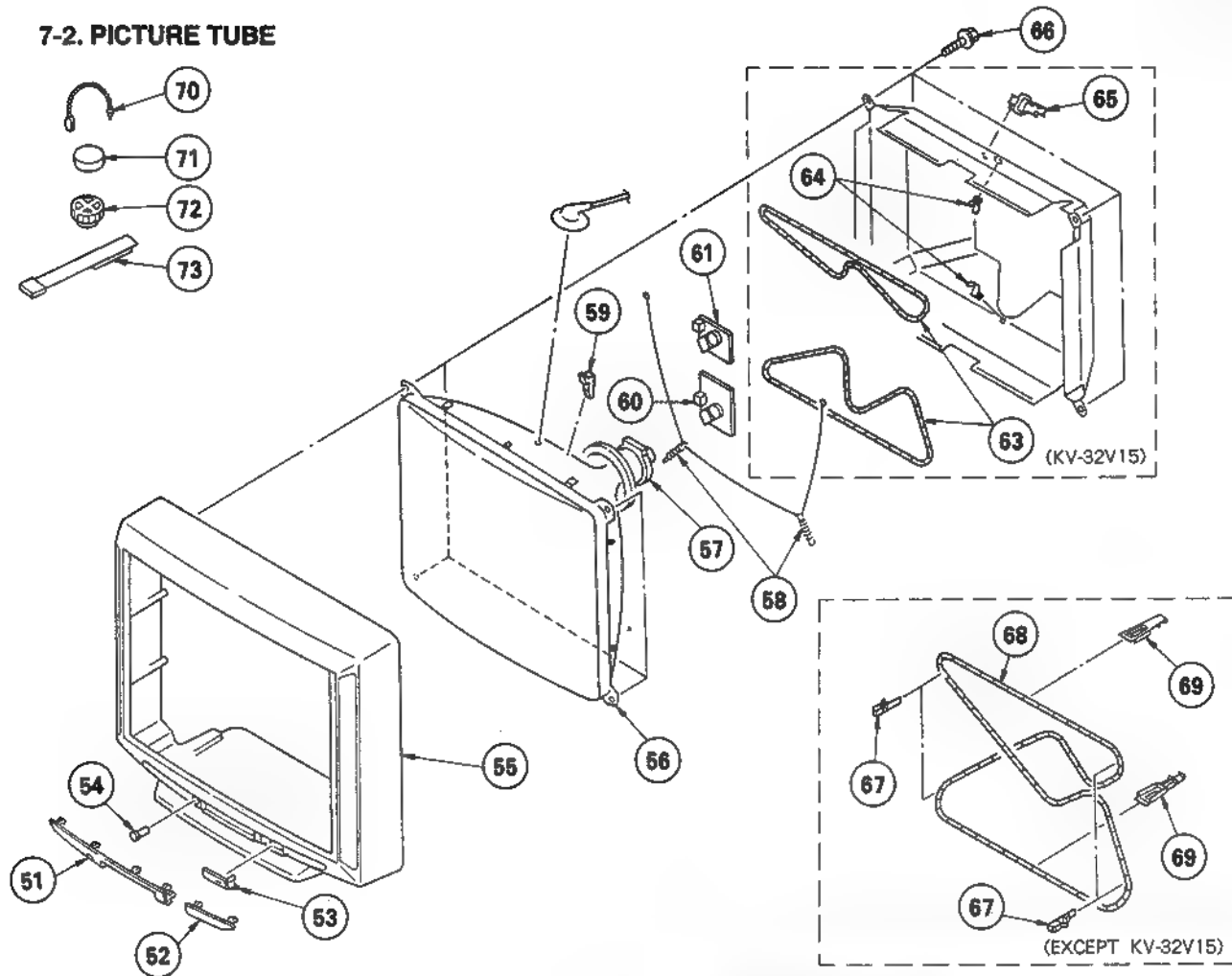
7-1. CHASSIS

- Δ : BVTP4 \times 12 7-685-661-14
■: BVTP4 \times 16 7-685-663-79



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
1	4-394-048-01	EMBLEM (NO.9), SONY		16	*A-1341-622-A	E BOARD, COMPLETE (KV-32V15)	
2	*1-651-245-11	L BOARD		17	*A-1195-062-A	P BOARD, COMPLETE (KV-27V15/32V15)	
3	*1-646-717-11	H BOARD		18	A-1390-411-A	Z BOARD, COMPLETE (KV-27V15/32V15)	
4	4-043-580-01	BUTTON, MULTI		19	4-039-517-11	PANEL, ANTENNA TERMINAL (KV-32V15)	
5	4-319-520-11	SCREW, SPECIAL (+PW4X30)			4-039-524-21	PANEL, ANTENNA TERMINAL (KV-27V15)	
6	Δ 1-453-416-11	TRANSFORMER ASSY. FLYBACK (NX-2604A3)			4-039-524-31	PANEL, ANTENNA TERMINAL (KV-27V10/29V10C/29V10M)	
7	*A-1346-192-A	D BOARD, COMPLETE (KV-27V10/29V10M)		20	4-382-854-11	SCREW (M3X10), P, SW (+)	
	*A-1346-199-A	D BOARD, COMPLETE (KV-29V10C)		21	4-039-834-01	LABEL, TERMINAL	
	*A-1346-200-A	D BOARD, COMPLETE (KV-27V15)		22	1-573-657-11	PLAUG, F-PIN (KV-27V10/27V15/29V10C/29V10M)	
	*A-1346-201-A	D BOARD, COMPLETE (KV-32V15)					
8	*A-1297-221-A	A BOARD, COMPLETE (KV-27V10/27V15/29V10C/29V10M)		23	Δ 1-751-056-11	CORD, POWER (WITH CONNECTOR) 6A/250V (KV-29V10C)	
	*A-1297-233-A	A BOARD, COMPLETE (KV-32V15)			Δ 1-751-059-11	CORD, POWER (WITH CONNECTOR) 10A/125V (KV-27V10/27V15/29V10M/32V15)	
9	Δ 8-598-254-00	TUNER BTF-WA402		24	4-043-579-01	COVER, REAR (KV-32V15)	
10	Δ 8-598-047-00	TUNER (KV-32V15)			4-043-661-01	COVER, REAR (KV-27V10/27V15/29V10C/29V10M)	
11	*1-751-136-11	CABLE, PIN (KV-32V15)		25	4-043-457-01	BAFFLE, SPEAKER	
12	*1-751-135-11	CABLE, PIN (KV-32V15)		26	4-374-745-11	CUSHION (A)	
13	1-417-178-11	SELECTOR, ANTENNA (AS-2) (KV-32V15)		27	1-504-524-11	SPEAKER (8CM)	
14	*A-1394-527-A	UA BOARD, COMPLETE (KV-27V15)		29	4-043-458-01	COVER, SPEAKER	
	*A-1394-529-A	UA BOARD, COMPLETE (KV-32V15)					
	*A-1394-552-A	UA BOARD, COMPLETE (KV-27V10/29V10C/29V10M)					
15	*A-1306-454-A	M BOARD, COMPLETE (KV-27V10/27V15/32V15)					
	*A-1306-462-A	M BOARD, COMPLETE (KV-29V10C/29V10M)					

7-2. PICTURE TUBE



The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
51	4-043-659-01	PANEL (LEFT), CONTROL		63	Δ 1-402-952-12	COIL, DEMAGNETIZATION (KV-32V15)	
52	4-043-658-01	PANEL (RIGHT), CONTROL		64	*4-371-629-01	STOPPER, WIRE (KV-32V15)	
53	4-043-433-01	DOOR, CONTROL		65	4-033-681-01	HOLDER, LEAD (KV-32V15)	
	4-043-433-21	DOOR, CONTROL (KV-32V15)		66	4-041-268-01	SCREW (7), TAPPING	
54	*4-389-517-01	GUIDE (R), LIGHT		67	4-040-388-01	HOLDER(S), DGC	(KV-27V10/27V15/29V10C/29V10M)
55	4-043-578-01	CABINET (WITH BEZEL) (KV-32V15)		68	Δ 1-406-726-22	COIL, DEMAGNETIZATION	(KV-27V10/27V15/29V10C/29V10M)
	4-043-660-01	CABINET (WITH BEZEL)			Δ 1-406-726-41	COIL, DEMAGNETIZATION (KV-29V10C)	
56	Δ 8-733-723-05	PICTURE TUBE (A80JYV50X) (KV-32V15)		69	4-040-387-01	HOLDER(M), DGC	(KV-27V10/27V15/29V10C/29V10M)
	Δ 8-733-848-05	PICTURE TUBE (A68KZJ50X)		70	4-308-870-00	CLIP, LEAD WIRE	
57	Δ 8-451-275-42	DEFLECTION YOKE Y28PFA(VTM)		71	1-452-032-00	MAGNET, DISK; 10MM ϕ	
	(KV-27V10/27V15/29V10C/29V10M)			72	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
	Δ 8-451-315-41	DEFLECTION YOKE Y34PXA(VTM) (KV-32V15)		73	X-4306-312-0	PERMALLOY ASSY, CONVERGENCE	
58	4-036-329-01	SPRING (B), TENSION					
59	4-041-361-01	SPACER, DEFLECTION YOKE					
60	*A-1331-351-A	C BOARD, COMPLETE (KV-32V15)					
61	*A-1331-327-A	C BOARD, COMPLETE	(KV-27V10/27V15/29V10C/29V10M)				

SECTION 8
ELECTRICAL PARTS LIST**P (KV-27V15/32V15)**

NOTE:

The components identified by shading and mark Δ are critical for safety.

Replace only with part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

• Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

• All resistors are in ohms
• F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS

• MF : μ F, PF : μ F

COILS

• MMH : mH, UH : μ H

• The components identified by Δ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
*A-1195-062-A P BOARD, COMPLETE (KV-27V15/32V15)				C3249	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
*****				C3250	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
<CAPACITOR>				C3251	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C3201	1-124-477-11	ELECT 47MF	20% 16V	C3252	1-163-103-00	CERAMIC CHIP 27PF	5% 50V
C3203	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C3253	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C3204	1-124-907-11	ELECT 10MF	20% 50V	C3254	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C3205	1-124-907-11	ELECT 10MF	20% 50V	C3255	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C3206	1-124-907-11	ELECT 10MF	20% 50V	C3256	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C3207	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C3257	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C3208	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C3258	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C3209	1-126-962-11	ELECT 3.3MF	20% 50V	C3259	1-163-111-00	CERAMIC CHIP 56PF	5% 50V
C3210	1-124-477-11	ELECT 47MF	20% 16V	C3260	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
C3212	1-126-962-11	ELECT 3.3MF	20% 50V	C3261	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C3213	1-164-346-11	CERAMIC CHIP 1MF	16V	C3263	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C3214	1-164-346-11	CERAMIC CHIP 1MF	16V	C3264	1-165-319-11	CERAMIC CHIP 0.1MF	5% 50V
C3215	1-164-346-11	CERAMIC CHIP 1MF	16V	C3265	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C3216	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C3266	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C3217	1-164-346-11	CERAMIC CHIP 1MF	16V	C3267	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C3218	1-164-346-11	CERAMIC CHIP 1MF	16V	C3268	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C3219	1-126-103-11	ELECT 470MF	20% 16V	C3269	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C3220	1-164-346-11	CERAMIC CHIP 1MF	16V	C3270	1-165-319-11	CERAMIC CHIP 0.1MF	5% 50V
C3221	1-164-346-11	CERAMIC CHIP 1MF	16V	C3271	1-165-319-11	CERAMIC CHIP 0.1MF	5% 50V
C3222	1-164-336-11	CERAMIC CHIP 0.33MF	25V	C3272	1-165-319-11	CERAMIC CHIP 0.1MF	5% 50V
C3223	1-164-336-11	CERAMIC CHIP 0.33MF	25V	C3273	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C3224	1-164-222-11	CERAMIC CHIP 0.22MF	25V	C3274	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C3225	1-164-222-11	CERAMIC CHIP 0.22MF	25V	C3275	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C3226	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C3276	1-163-111-00	CERAMIC CHIP 56PF	5% 50V
C3227	1-164-346-11	CERAMIC CHIP 1MF	16V	C3277	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C3228	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C3278	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C3229	1-163-093-00	CERAMIC CHIP 10PF	5% 50V	C3279	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C3230	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	C3280	1-124-907-11	ELECT 10MF	20% 50V
C3231	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	C3282	1-164-346-11	CERAMIC CHIP 1MF	16V
C3232	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	<CONNECTOR>			
C3233	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	CN150	1-573-297-21	CONNECTOR, BOARD TO BOARD 18P	
C3234	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	<DIODE>			
C3235	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	D3202	8-719-031-68	DIODE HVU359TRF	
C3236	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	D3203	8-719-404-46	DIODE MA110	
C3237	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	D3208	8-719-110-17	DIODE RD10ESB2	
C3238	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	D3209	8-719-110-17	DIODE RD10ESB2	
C3239	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	<IC>			
C3240	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	IC3200	8-759-971-56	IC MB81461B-12RS-PSZ	
C3241	1-163-103-00	CERAMIC CHIP 27PF	5% 50V	IC3201	8-759-093-29	IC MB86144BPF-G-BND	
C3242	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	IC3202	8-759-093-28	IC MB40176PF-G-BND-EF	
C3243	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	IC3203	8-759-093-28	IC MB40176PF-G-BND-EF	
C3244	1-163-113-00	CERAMIC CHIP 68PF	5% 50V	IC3204	8-759-093-26	IC MB3512PFQ-G-BND-EF	
C3245	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V				
C3246	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V				
C3247	1-163-033-00	CERAMIC CHIP 0.022MF	50V				
C3248	1-163-125-00	CERAMIC CHIP 220PF	5% 50V				

P (KV-27V15/32V15)

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
IC3205	8-759-243-19	IC TC7SU04F		R3238	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
<COIL>				R3239	1-216-043-00	METAL GLAZE 560 5% 1/10W	
L3201	1-410-470-11	INDUCTOR 10UH		R3241	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
L3202	1-408-424-00	INDUCTOR 180UH		R3242	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
L3203	1-408-424-00	INDUCTOR 180UH		R3243	1-216-025-00	METAL GLAZE 100 5% 1/10W	
L3204	1-410-476-11	INDUCTOR 33UH		R3244	1-216-025-00	METAL GLAZE 100 5% 1/10W	
L3205	1-410-470-11	INDUCTOR 10UH		R3245	1-216-025-00	METAL GLAZE 100 5% 1/10W	
L3206	1-410-387-11	INDUCTOR 33UH		R3246	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
L3207	1-410-387-11	INDUCTOR 33UH		R3247	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
L3208	1-410-387-11	INDUCTOR 33UH		R3248	1-216-295-00	METAL GLAZE 0 5% 1/10W	
L3209	1-410-387-11	INDUCTOR 33UH		R3249	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
<TRANSISTOR>				R3250	1-216-043-00	METAL GLAZE 560 5% 1/10W	
Q3201	8-729-216-22	TRANSISTOR 2SA1162-G		R3251	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
Q3202	8-729-422-27	TRANSISTOR 2SD601A-Q		R3252	1-216-043-00	METAL GLAZE 560 5% 1/10W	
Q3203	8-729-216-22	TRANSISTOR 2SA1162-G		R3253	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
Q3204	8-729-216-22	TRANSISTOR 2SA1162-G		R3254	1-216-043-00	METAL GLAZE 560 5% 1/10W	
Q3206	8-729-422-27	TRANSISTOR 2SD601A-Q		R3255	1-216-041-00	METAL GLAZE 470 5% 1/10W	
Q3207	8-729-216-22	TRANSISTOR 2SA1162-G		R3256	1-216-043-00	METAL GLAZE 560 5% 1/10W	
Q3208	8-729-422-27	TRANSISTOR 2SD601A-Q		R3259	1-216-298-00	METAL GLAZE 2.2 5% 1/10W	
Q3209	8-729-216-22	TRANSISTOR 2SA1162-G		R3260	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
Q3210	8-729-216-22	TRANSISTOR 2SA1162-G		R3263	1-216-025-00	METAL GLAZE 100 5% 1/10W	
<RESISTOR>				R3264	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R3201	1-216-097-00	METAL GLAZE 100K 5% 1/10W		R3265	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R3202	1-216-073-00	METAL GLAZE 10K 5% 1/10W		R3266	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R3203	1-216-025-00	METAL GLAZE 100 5% 1/10W		R3267	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R3204	1-216-025-00	METAL GLAZE 100 5% 1/10W		R3268	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R3205	1-216-121-00	METAL GLAZE 1M 5% 1/10W		R3269	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R3207	1-216-295-00	METAL GLAZE 0 5% 1/10W		R3270	1-216-657-11	METAL CHIP 1.8K 0.50% 1/10W	
R3208	1-216-097-00	METAL GLAZE 100K 5% 1/10W		R3271	1-216-655-11	METAL CHIP 1.5K 0.50% 1/10W	
R3209	1-216-079-00	METAL GLAZE 18K 5% 1/10W		R3273	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R3210	1-216-089-91	METAL GLAZE 47K 5% 1/10W		R3274	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R3211	1-216-073-00	METAL GLAZE 10K 5% 1/10W		R3275	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R3212	1-216-073-00	METAL GLAZE 10K 5% 1/10W		R3276	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R3213	1-216-075-00	METAL GLAZE 12K 5% 1/10W		R3277	1-216-298-00	METAL GLAZE 2.2 5% 1/10W	
R3214	1-216-121-00	METAL GLAZE 1M 5% 1/10W		<CRYSTAL>			
R3215	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W		X3201	1-567-878-11	VIBRATOR, CRYSTAL	
R3216	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W		X3202	1-567-878-11	VIBRATOR, CRYSTAL	
R3217	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W		*****			
R3218	1-216-049-00	METAL GLAZE 1K 5% 1/10W		*A-1297-221-A	A. BOARD, COMPLETE		
R3219	1-216-049-00	METAL GLAZE 1K 5% 1/10W		*****			
R3220	1-216-049-00	METAL GLAZE 1K 5% 1/10W		(KV-27V10/27V15/29V10C/29V10M)			
R3221	1-216-655-11	METAL CHIP 1.5K 0.50% 1/10W		*A-1297-233-A	A. BOARD, COMPLETE (KV-32V15)		
R3222	1-216-655-11	METAL CHIP 1.5K 0.50% 1/10W		*****			
R3223	1-216-025-00	METAL GLAZE 100 5% 1/10W		<CAPACITOR>			
R3224	1-216-049-00	METAL GLAZE 1K 5% 1/10W		C173	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
R3225	1-216-025-00	METAL GLAZE 100 5% 1/10W		C174	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
R3226	1-216-085-00	METAL GLAZE 33K 5% 1/10W		C175	1-126-935-11	ELECT 470MF 20% 16V	
R3227	1-216-647-11	METAL CHIP 680 0.50% 1/10W		C176	1-126-935-11	ELECT 470MF 20% 16V	
R3228	1-216-045-00	METAL GLAZE 680 5% 1/10W		C177	1-126-964-11	ELECT 10MF 20% 50V	
R3229	1-216-073-00	METAL GLAZE 10K 5% 1/10W		C178	1-126-933-11	ELECT 100MF 20% 16V	
R3230	1-216-073-00	METAL GLAZE 10K 5% 1/10W		C179	1-124-916-11	ELECT 22MF 20% 25V	
R3231	1-216-001-00	METAL GLAZE 10 5% 1/10W		C180	1-124-916-11	ELECT 22MF 20% 25V	
R3232	1-216-083-00	METAL GLAZE 27K 5% 1/10W		(KV-32V15)			
R3233	1-216-049-00	METAL GLAZE 1K 5% 1/10W		C181	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V	
R3234	1-216-651-11	METAL CHIP 1K 0.50% 1/10W		(KV-32V15)			
R3235	1-216-043-00	METAL GLAZE 560 5% 1/10W		C182	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V	
R3236	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		(KV-32V15)			
R3237	1-216-043-00	METAL GLAZE 560 5% 1/10W		C184	1-126-964-11	ELECT 10MF 20% 50V	
				(KV-32V15)			
				C185	1-126-964-11	ELECT 10MF 20% 50V	
				(KV-32V15)			



Les composants identifiés par
une trame et une marque
sont critiques pour la sécurité.
Ne les remplacer que par une
pièce portant le numéro spécifié.

The components identified by
shading and mark are critical
for safety.
Replace only with part number
specified.

REF. NO. PART NO.

DESCRIPTION

REMARK

REF. NO. PART NO.

DESCRIPTION

REMARK

<CONNECTOR>

CN103 *1-564-519-11 PLUG, CONNECTOR 4P
CN151 1-573-979-21 CONNECTOR, BOARD TO BOARD 11P
CN152 1-750-394-11 PIN, CONNECTOR (STAKING) 32P
CN164 1-564-505-11 PLUG, CONNECTOR 2P
CN165 1-564-505-11 PLUG, CONNECTOR 2P
CN208 1-564-510-11 PLUG, CONNECTOR 7P
(KV-27V10/27V15/29V10C/29V10M)

<DIODE>

D170 8-719-110-76 DIODE RD33ESB1
D175 8-719-110-76 DIODE RD33ESB1 (KV-32V15)

<IC>

IC172 8-759-932-67 IC BU4053BF

<COIL>

L170 1-408-408-00 INDUCTOR 8.2UH
L171 1-408-408-00 INDUCTOR 8.2UH
L172 1-408-408-00 INDUCTOR 8.2UH
L173 1-408-408-00 INDUCTOR 8.2UH (KV-32V15)

<TRANSISTOR>

Q172 8-729-216-22 TRANSISTOR 2SA1162-G (KV-32V15)
Q173 8-729-216-22 TRANSISTOR 2SA1162-G (KV-32V15)

<RESISTOR>

R170 1-216-025-00 METAL GLAZE 100 5% 1/10W
(KV-27V10/27V15/29V10C/29V10M)
R173 1-216-295-00 METAL GLAZE 0 5% 1/10W
(KV-32V15)
R174 1-216-689-11 METAL GLAZE 39K 5% 1/10W
R175 1-215-900-11 METAL OXIDE 22K 5% 2W F
(KV-32V15)
R176 1-216-295-00 METAL GLAZE 0 5% 1/10W
(KV-27V10/27V15/29V10C/29V10M)
R177 1-215-900-11 METAL OXIDE 22K 5% 2W F
R179 1-216-065-00 METAL GLAZE 4.7K 5% 1/10W
R181 1-216-025-00 METAL GLAZE 100 5% 1/10W
(KV-32V15)
R185 1-216-025-00 METAL GLAZE 100 5% 1/10W
(KV-32V15)
R187 1-216-083-00 METAL GLAZE 27K 5% 1/10W
R188 1-216-689-11 METAL GLAZE 39K 5% 1/10W
(KV-32V15)
R189 1-216-083-00 METAL GLAZE 27K 5% 1/10W
(KV-32V15)
R190 1-216-065-00 METAL GLAZE 4.7K 5% 1/10W
(KV-32V15)
R191 1-216-065-00 METAL GLAZE 4.7K 5% 1/10W
(KV-32V15)
R193 1-216-037-00 METAL GLAZE 330 5% 1/10W
(KV-32V15)
R196 1-216-037-00 METAL GLAZE 330 5% 1/10W
(KV-32V15)

<TUNER>

TU101A 8-598-254-00 TUNER BTF-WA402
TU102A 8-598-047-00 TUNER (KV-32V15)

*A-1306-454-A M BOARD, COMPLETE (KV-27V10/27V15/32V15)

*A-1306-462-A M BOARD, COMPLETE (KV-29V10C/29V10M)

<CAPACITOR>

C002 1-163-809-11 CERAMIC CHIP 0.047MF 10% 25V
C003 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C005 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C006 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C007 1-124-903-11 ELECT 1MF 20% 50V
C008 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C009 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C010 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C012 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C013 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C014 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C015 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C016 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C017 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C018 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C019 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C021 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C022 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C023 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C025 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C028 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C029 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C032 1-124-902-00 ELECT 0.47MF 20% 50V
C033 1-126-933-11 ELECT 100MF 20% 10V
C034 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
(KV-27V10/27V15/32V15)
C035 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
(KV-27V10/27V15/32V15)
C041 1-163-009-11 CERAMIC CHIP 0.001MF 10% 50V
C043 1-163-159-00 CERAMIC CHIP 12PF 2% 50V
C045 1-126-940-11 ELECT 330MF 20% 16V
C047 1-104-896-11 CERAMIC CHIP 24PF 2% 50V
C048 1-126-964-11 ELECT 10MF 20% 50V
C049 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C050 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C051 1-163-031-11 CERAMIC CHIP 0.01MF 50V
C052 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C053 1-163-121-00 CERAMIC CHIP 150PF 5% 50V
C054 1-163-125-00 CERAMIC CHIP 220PF 5% 50V
C055 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C056 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C057 1-163-017-00 CERAMIC CHIP 0.0047MF 10% 50V
C058 1-163-037-11 CERAMIC CHIP 0.022MF 10% 25V
C059 1-163-001-11 CERAMIC CHIP 220PF 10% 50V
C060 1-124-903-11 ELECT 1MF 20% 50V
C062 1-126-964-11 ELECT 10MF 20% 50V
C150 1-136-165-00 FILM 0.1MF 5% 50V
(KV-27V10/27V15/32V15)



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C151	1-136-175-00	FILM 0.068MF 5% 50V (KV-27V10/27V15/32V15)					
C152	1-126-964-11	ELECT 10MF 20% 50V (KV-27V10/27V15/32V15)				<CONNECTOR>	
C153	1-137-367-11	FILM 0.0033MF 5% 50V (KV-27V10/27V15/32V15)		CN129	*1-564-521-11	PLUG, CONNECTOR 6P	
C154	1-163-038-00	CERAMIC CHIP 0.1MF 25V (KV-27V10/27V15/32V15)		CN130	1-573-301-21	CONNECTOR, BOARD TO BOARD 20P	
C155	1-126-964-11	ELECT 10MF 20% 50V (KV-27V10/27V15/32V15)		CN131	*1-691-914-11	CONNECTOR, BOARD TO BOARD 15P	
C156	1-163-135-00	CERAMIC CHIP 560PF 5% 50V (KV-27V10/27V15/32V15)		CN134	*1-564-521-11	PLUG, CONNECTOR 6P (KV-27V10/27V15/32V15)	
C157	1-163-038-00	CERAMIC CHIP 0.1MF 25V (KV-27V10/27V15/32V15)		CN137	1-750-394-11	PIN, CONNECTOR (STAKING) 32P	
C158	1-124-903-11	ELECT 1MF 20% 50V (KV-27V10/27V15/32V15)		CN138	*1-564-512-11	PLUG, CONNECTOR 9P	
C160	1-124-903-11	ELECT 1MF 20% 50V		CN163	*1-564-508-11	PLUG, CONNECTOR 5P (KV-27V10/27V15/32V15)	
C201	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V		CN168	1-564-505-11	PLUG, CONNECTOR 2P	
C202	1-163-001-11	CERAMIC CHIP 220PF 10% 50V				<DIODE>	
C203	1-163-989-11	CERAMIC CHIP 0.033MF 10% 25V		D001	8-719-404-46	DIODE MA110	
C204	1-126-933-11	ELECT 100MF 20% 16V		D002	8-719-404-46	DIODE MA110	
C205	1-163-001-11	CERAMIC CHIP 220PF 10% 50V		D004	8-719-404-46	DIODE MA110 (KV-27V10/27V15/32V15)	
C211	1-163-989-11	CERAMIC CHIP 0.033MF 10% 25V		D005	8-713-300-57	DIODE 1T33	
C212	1-124-902-00	ELECT 0.47MF 20% 50V		D006	8-719-110-17	DIODE RD10ESB2	
C213	1-124-902-00	ELECT 0.47MF 20% 50V		D007	8-719-110-17	DIODE RD10ESB2	
C214	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V		D008	8-719-110-17	DIODE RD10ESB2	
C216	1-104-665-11	ELECT 100MF 20% 25V		D009	8-719-110-17	DIODE RD10ESB2	
C301	1-163-117-00	CERAMIC CHIP 100PF 5% 50V		D150	8-719-404-46	DIODE MA110 (KV-27V10/27V15/32V15)	
C305	1-126-964-11	ELECT 10MF 20% 50V		D201	8-719-404-46	DIODE MA110	
C306	1-124-902-00	ELECT 0.47MF 20% 50V		D202	8-719-404-46	DIODE MA110	
C307	1-163-125-00	CERAMIC CHIP 220PF 5% 50V		D205	8-719-110-17	DIODE RD10ESB2	
C308	1-163-099-00	CERAMIC CHIP 18PF 5% 50V		D206	8-719-110-17	DIODE RD10ESB2	
C310	1-124-916-11	ELECT 22MF 20% 25V		D207	8-719-510-48	DIODE DIN20R (KV-27V10/27V15/32V15)	
C311	1-124-903-11	ELECT 1MF 20% 50V		D301	8-719-110-17	DIODE RD10ESB2	
C313	1-163-003-11	CERAMIC CHIP 330PF 10% 50V		D304	8-719-110-17	DIODE RD10ESB2	
C315	1-126-964-11	ELECT 10MF 20% 50V (KV-27V10/27V15/32V15)				<IC>	
C316	1-126-964-11	ELECT 10MF 20% 50V (KV-27V10/27V15/32V15)		IC101	8-752-851-01	IC CXP80424-079S	
C317	1-126-964-11	ELECT 10MF 20% 50V (KV-27V10/27V15/32V15)		IC102	8-759-168-37	IC ST24C01B1	
C318	1-136-165-00	FILM 0.1MF 5% 50V		IC103	8-759-805-37	IC L78LR05D-MA	
C319	1-136-165-00	FILM 0.1MF 5% 50V		IC150	8-759-084-28	IC MC144143P1 (KV-27V10/27V15/32V15)	
C320	1-136-165-00	FILM 0.1MF 5% 50V		IC201	8-759-090-21	IC TDA8424	
C321	1-126-952-11	ELECT 1000MF 20% 16V		IC202	8-759-983-69	IC LM358PS	
C322	1-136-153-00	FILM 0.01MF 5% 50V		IC301	8-752-059-67	IC CXA1465AS	
C323	1-126-923-11	ELECT 220MF 20% 10V				<COIL>	
C324	1-163-003-11	CERAMIC CHIP 330PF 10% 50V		L001	1-410-470-11	INDUCTOR 10UH	
C325	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V		L002	1-408-414-00	INDUCTOR 27UH	
C326	1-136-169-00	FILM 0.22MF 5% 50V		L150	1-410-470-11	INDUCTOR 10UH (KV-27V10/27V15/32V15)	
C327	1-136-169-00	FILM 0.22MF 5% 50V				<TRANSISTOR>	
C328	1-124-902-00	ELECT 0.47MF 20% 50V		Q001	8-729-216-22	TRANSISTOR 2SA1162-G	
C329	1-124-903-11	ELECT 1MF 20% 50V		Q004	8-729-216-22	TRANSISTOR 2SA1162-G	
C330	1-126-964-11	ELECT 10MF 20% 50V		Q005	8-729-422-27	TRANSISTOR 2SD601A-Q	
C332	1-164-489-11	CERAMIC CHIP 0.22MF 10% 16V		Q151	8-729-422-27	TRANSISTOR 2SD601A-Q (KV-27V10/27V15/32V15)	
C333	1-163-011-11	CERAMIC CHIP 0.0015MF 10% 50V		Q201	8-729-422-27	TRANSISTOR 2SD601A-Q	
C334	1-124-902-00	ELECT 0.47MF 20% 50V		Q301	8-729-216-22	TRANSISTOR 2SA1162-G	
C335	1-163-001-11	CERAMIC CHIP 220PF 10% 50V		Q302	8-729-216-22	TRANSISTOR 2SA1162-G	
C336	1-124-903-11	ELECT 1MF 20% 50V		Q308	8-729-422-27	TRANSISTOR 2SD601A-Q	
C337	1-124-902-00	ELECT 0.47MF 20% 50V					
C338	1-136-153-00	FILM 0.01MF 5% 50V					
C340	1-124-903-11	ELECT 1MF 20% 50V					
C341	1-163-005-11	CERAMIC CHIP 470PF 10% 50V					
C342	1-137-414-11	FILM 0.0047MF 10% 100V					

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<RESISTOR>				R063	1-216-033-00	METAL GLAZE 220 5% 1/10W (KV-27V10/27V15/32V15)	
JR200	1-216-295-00	METAL GLAZE 0 5% 1/10W		R064	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
JR201	1-216-295-00	METAL GLAZE 5% 1/10W		R065	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
JR202	1-216-295-00	METAL GLAZE 5% 1/10W		R066	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R002	1-216-073-00	METAL GLAZE 10K 5% 1/10W		R067	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R003	1-216-033-00	METAL GLAZE 220 5% 1/10W		R069	1-216-033-00	METAL GLAZE 220 5% 1/10W (KV-27V10/27V15/32V15)	
R004	1-216-033-00	METAL GLAZE 220 5% 1/10W		R070	1-216-049-00	METAL GLAZE 1K 5% 1/10W (KV-27V10/27V15/32V15)	
R005	1-216-033-00	METAL GLAZE 220 5% 1/10W		R071	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R006	1-216-049-00	METAL GLAZE 1K 5% 1/10W		R074	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R007	1-216-033-00	METAL GLAZE 220 5% 1/10W		R075	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R008	1-216-033-00	METAL GLAZE 220 5% 1/10W		R076	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R009	1-216-033-00	METAL GLAZE 220 5% 1/10W		R078	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R011	1-216-033-00	METAL GLAZE 220 5% 1/10W		R079	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R012	1-216-033-00	METAL GLAZE 220 5% 1/10W		R080	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R013	1-216-033-00	METAL GLAZE 220 5% 1/10W		R082	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R016	1-216-033-00	METAL GLAZE 220 5% 1/10W		R083	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R017	1-216-033-00	METAL GLAZE 220 5% 1/10W		R086	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R018	1-216-033-00	METAL GLAZE 220 5% 1/10W		R087	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R019	1-216-033-00	METAL GLAZE 220 5% 1/10W		R091	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R020	1-216-033-00	METAL GLAZE 220 5% 1/10W		R092	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R021	1-216-073-00	METAL GLAZE 10K 5% 1/10W		R093	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R022	1-216-073-00	METAL GLAZE 10K 5% 1/10W		R150	1-216-097-00	METAL GLAZE 100K 5% 1/10W (KV-27V10/27V15/32V15)	
R023	1-216-033-00	METAL GLAZE 220 5% 1/10W		R151	1-216-049-00	METAL GLAZE 1K 5% 1/10W (KV-27V10/27V15/32V15)	
R025	1-216-033-00	METAL GLAZE 220 5% 1/10W		R152	1-216-049-00	METAL GLAZE 1K 5% 1/10W (KV-27V10/27V15/32V15)	
R026	1-216-097-00	METAL GLAZE 100K 5% 1/10W		R153	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W (KV-27V10/27V15/32V15)	
R027	1-216-121-00	METAL GLAZE 1M 5% 1/10W		R154	1-216-041-00	METAL GLAZE 470 5% 1/10W (KV-27V10/27V15/32V15)	
R028	1-216-073-00	METAL GLAZE 10K 5% 1/10W		R155	1-216-049-00	METAL GLAZE 1K 5% 1/10W (KV-27V10/27V15/32V15)	
R029	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		R156	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R030	1-216-073-00	METAL GLAZE 10K 5% 1/10W		R157	1-216-073-00	METAL GLAZE 10K 5% 1/10W (KV-27V10/27V15/32V15)	
R031	1-216-033-00	METAL GLAZE 220 5% 1/10W		R158	1-216-073-00	METAL GLAZE 10K 5% 1/10W (KV-27V10/27V15/32V15)	
R032	1-216-033-00	METAL GLAZE 220 5% 1/10W		R159	1-216-049-00	METAL GLAZE 1K 5% 1/10W (KV-27V10/27V15/32V15)	
R033	1-216-033-00	METAL GLAZE 220 5% 1/10W		R160	1-216-049-00	METAL GLAZE 1K 5% 1/10W (KV-27V10/27V15/32V15)	
R034	1-216-033-00	METAL GLAZE 220 5% 1/10W		R161	1-216-049-00	METAL GLAZE 1K 5% 1/10W (KV-27V10/27V15/32V15)	
R035	1-216-033-00	METAL GLAZE 220 5% 1/10W		R162	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W (KV-27V10/27V15/32V15)	
R036	1-216-033-00	METAL GLAZE 220 5% 1/10W		R163	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W (KV-27V10/27V15/32V15)	
R037	1-216-033-00	METAL GLAZE 220 5% 1/10W		R164	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W (KV-27V10/27V15/32V15)	
R038	1-216-033-00	METAL GLAZE 220 5% 1/10W		R165	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W (KV-27V10/27V15/32V15)	
R039	1-216-295-00	METAL GLAZE 0 5% 1/10W		R166	1-216-049-00	METAL GLAZE 1K 5% 1/10W (KV-27V10/27V15/32V15)	
R040	1-216-049-00	METAL GLAZE 1K 5% 1/10W		R168	1-216-049-00	METAL GLAZE 1K 5% 1/10W (KV-27V10/27V15/32V15)	
R041	1-216-033-00	METAL GLAZE 220 5% 1/10W		R201	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R042	1-216-049-00	METAL GLAZE 1K 5% 1/10W		R202	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R043	1-216-049-00	METAL GLAZE 1K 5% 1/10W		R203	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R044	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		R204	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R045	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		R205	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R046	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W					
R048	1-216-073-00	METAL GLAZE 10K 5% 1/10W					
R049	1-216-049-00	METAL GLAZE 1K 5% 1/10W					
R050	1-216-049-00	METAL GLAZE 1K 5% 1/10W					
R051	1-216-073-00	METAL GLAZE 10K 5% 1/10W					
R052	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W					
R053	1-216-049-00	METAL GLAZE 1K 5% 1/10W					
R054	1-216-049-00	METAL GLAZE 1K 5% 1/10W					
R055	1-216-033-00	METAL GLAZE 220 5% 1/10W (KV-27V10/27V15/32V15)					
R056	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W					
R057	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W					
R058	1-216-073-00	METAL GLAZE 10K 5% 1/10W					
R059	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W					
R060	1-216-079-00	METAL GLAZE 18K 5% 1/10W (KV-27V10/27V15/32V15)					
	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-29V10C/29V10M)					
R062	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W					

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

M C

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R206	1-216-295-00	METAL GLAZE	0 5% 1/10W	*A-1331-327-A	C BOARD, COMPLETE		
R207	1-216-085-00	METAL GLAZE	33K 5% 1/10W		*****		
R208	1-216-089-91	METAL GLAZE	47K 5% 1/10W		(KV-27V10/27V15/29V10C/29V10M)		
R209	1-216-085-00	METAL GLAZE	33K 5% 1/10W	*A-1331-351-A	C BOARD, COMPLETE (KV-32V15)		
R210	1-216-089-91	METAL GLAZE	47K 5% 1/10W		*****		
R211	1-216-033-00	METAL GLAZE	220 5% 1/10W		<CAPACITOR>		
R212	1-216-025-00	METAL GLAZE	100 5% 1/10W	C700	1-102-074-00	CERAMIC	0.001NF 10% 50V
R213	1-216-025-00	METAL GLAZE	100 5% 1/10W	C701	1-162-114-00	CERAMIC	0.0047MF 2KV
R218	1-216-073-00	METAL GLAZE	10K 5% 1/10W	C702	1-106-375-12	MYLAR	0.022MF 200V
R219	1-216-073-00	METAL GLAZE	10K 5% 1/10W	C703	1-106-375-12	MYLAR	0.022MF 200V
R220	1-216-033-00	METAL GLAZE	220 5% 1/10W	C704	1-162-116-00	CERAMIC	680PF 10% 2KV
R222	1-216-089-91	METAL GLAZE	47K 5% 1/10W	C705	1-123-946-00	ELECT	4.7MF 20% 250V
R223	1-216-045-00	METAL GLAZE	680 5% 1/10W	C706	1-124-916-11	ELECT	22MF 20% 25V
R301	1-216-025-00	METAL GLAZE	100 5% 1/10W		(KV-27V10/27V15/29V10C/29V10M)		
R302	1-216-049-00	METAL GLAZE	1K 5% 1/10W		1-126-933-11	ELECT	100MF 20% 16V (KV-32V15)
R303	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C707	1-102-129-00	CERAMIC	0.01MF 10% 50V (KV-32V15)
R304	1-216-039-00	METAL GLAZE	390 5% 1/10W	C711	1-164-083-11	CERAMIC	680PF 10% 50V (KV-32V15)
R305	1-216-039-00	METAL GLAZE	390 5% 1/10W	C712	1-164-081-11	CERAMIC	470PF 10% 50V (KV-32V15)
R306	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	C731	1-164-083-11	CERAMIC	680PF 10% 50V (KV-32V15)
R312	1-216-119-00	METAL GLAZE	820K 5% 1/10W	C732	1-164-081-11	CERAMIC	470PF 10% 50V (KV-32V15)
R313	1-216-079-00	METAL GLAZE	18K 5% 1/10W	C751	1-164-083-11	CERAMIC	680PF 10% 50V (KV-32V15)
R321	1-216-025-00	METAL GLAZE	100 5% 1/10W	C752	1-164-081-11	CERAMIC	470PF 10% 50V (KV-27V10/27V15/29V10C/29V10M)
R323	1-216-041-00	METAL GLAZE	470 5% 1/10W		1-164-083-11	CERAMIC	680PF 10% 50V (KV-32V15)
R324	1-216-025-00	METAL GLAZE	100 5% 1/10W		<CONNECTOR>		
R327	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W	CN701	1-695-915-11	TAB (CONTACT)	
R328	1-216-033-00	METAL GLAZE	220 5% 1/10W	CN702	1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P	
R329	1-216-033-00	METAL GLAZE	220 5% 1/10W	CN703	*1-564-509-11	PLUG, CONNECTOR 6P	
R330	1-216-295-00	METAL GLAZE	11 5% 1/10W		<DIODE>		
R331	1-216-678-11	METAL CHIP	13K 0.50% 1/10W	D711	8-719-911-19	DIODE 1SS119 (KV-32V15)	
R332	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	D712	8-719-911-19	DIODE 1SS119 (KV-32V15)	
R333	1-216-025-00	METAL GLAZE	100 5% 1/10W	D731	8-719-911-19	DIODE 1SS119 (KV-32V15)	
R334	1-216-687-11	METAL CHIP	33K 0.50% 1/10W	D732	8-719-911-19	DIODE 1SS119 (KV-32V15)	
R335	1-216-121-00	METAL GLAZE	1M 5% 1/10W	D751	8-719-911-19	DIODE 1SS119 (KV-32V15)	
R336	1-216-295-00	METAL GLAZE	0 5% 1/10W	D752	8-719-911-19	DIODE 1SS119 (KV-32V15)	
R337	1-216-049-00	METAL GLAZE	1K 5% 1/10W	D770	8-719-911-19	DIODE 1SS119	
R338	1-249-417-11	CARBON	1K 5% 1/4W F	D771	8-719-911-19	DIODE 1SS119	
R339	1-216-049-00	METAL GLAZE	1K 5% 1/10W	D772	8-719-911-19	DIODE 1SS119	
R340	1-216-077-00	METAL GLAZE	15K 5% 1/10W	D773	8-719-911-19	DIODE 1SS119	
R341	1-216-085-00	METAL GLAZE	33K 5% 1/10W	D777	8-719-109-72	DIODE RD3.9ESB2	
R342	1-216-295-00	METAL GLAZE	0 5% 1/10W	D790	8-719-911-19	DIODE 1SS119	
R343	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	D791	8-719-911-19	DIODE 1SS119	
R344	1-216-043-00	METAL GLAZE	560 5% 1/10W	D792	8-719-911-19	DIODE 1SS119	
R345	1-216-109-00	METAL GLAZE	330K 5% 1/10W		<JACK>		
R346	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	J701	*1-540-124-11	SOCKET, PICTURE TUBE	
R347	1-249-409-11	CARBON	220 5% 1/4W F		<COIL>		
R348	1-216-097-00	METAL GLAZE	100K 5% 1/10W	L701	1-410-478-11	INDUCTOR	47UH
R349	1-216-089-91	METAL GLAZE	47K 5% 1/10W				
R351	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R352	1-216-089-91	METAL GLAZE	47K 5% 1/10W				
R354	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R356	1-216-295-00	METAL GLAZE	0 5% 1/10W				
R374	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R375	1-216-033-00	METAL GLAZE	220 5% 1/10W				
		<CRYSTAL>					
X001	1-579-917-21	VIBRATOR, CRYSTAL					
X301	1-567-505-11	OSCILLATOR, CRYSTAL					

C E (KV-32V15)

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<TRANSISTOR>				R774	1-249-437-11	CARBON 47K 5% 1/4W	
Q711	8-729-326-11	TRANSISTOR 2SC2611		R775	1-249-417-11	CARBON 1K 5% 1/4W	F
Q712	8-729-119-78	TRANSISTOR 2SC2785-HFE (KV-32V15)		R776	1-249-409-11	CARBON 220 5% 1/4W	F
Q731	8-729-326-11	TRANSISTOR 2SC2611		R790	1-249-413-11	CARBON 470 5% 1/4W	
Q732	8-729-119-78	TRANSISTOR 2SC2785-HFE (KV-32V15)		R791	1-249-412-11	CARBON 390 5% 1/4W	
Q751	8-729-326-11	TRANSISTOR 2SC2611		<VARIABLE RESISTOR>			
Q752	8-729-119-78	TRANSISTOR 2SC2785-HFE (KV-32V15)		RV702	1-230-641-11	RES. ADJ. METAL GLAZE 2.2M	
Q770	8-729-119-76	TRANSISTOR 2SA1175-HFE		*****			
Q771	8-729-200-17	TRANSISTOR 2SA1091-0		*A-1341-622-A	■ BOARD, COMPLETE (KV-32V15)		
Q772	8-729-200-17	TRANSISTOR 2SA1091-0		*****			
Q773	8-729-200-17	TRANSISTOR 2SA1091-0		4-382-854-11	SCREW (M3X10), P. SW (+)		
<RESISTOR>				<CAPACITOR>			
R700	1-247-739-11	CARBON 100 5% 1/2W		C1501	1-126-103-11	ELECT 470MF 20% 16V	
R701	1-244-941-00	CARBON 680K 5% 1/2W		C1502	1-137-372-11	FILM 0.022MF 5% 50V	
R702	1-249-496-11	CARBON 100K 5% 1/2W		C1503	1-102-234-00	CERAMIC 270PF 10% 500V	
R703	1-249-496-11	CARBON 100K 5% 1/2W		C1504	1-136-165-00	FILM 0.1MF 5% 50V	
R704	1-216-398-11	METAL OXIDE 5.6 5% 3W	F	C1505	1-124-907-11	ELECT 10MF 20% 50V	
R705	1-216-398-11	METAL OXIDE 5.6 5% 3W	F	C1507	1-124-907-11	ELECT 10MF 20% 50V	
R707	1-249-496-11	CARBON 100K 5% 1/2W	(KV-32V15)	C1509	1-136-165-00	FILM 0.1MF 5% 50V	
R710	1-247-758-11	CARBON 3.3K 5% 1/2W		C1510	1-137-370-11	FILM 0.01MF 5% 50V	
R711	1-247-807-31	CARBON 100 5% 1/4W		C1516	1-136-165-00	FILM 0.1MF 5% 50V	
R712	1-215-924-71	METAL OXIDE 15K 5% 3W	F	C1519	1-136-104-00	FILM 0.16MF 5% 200V	
R714	1-249-425-11	CARBON 4.7K 5% 1/4W		C1522	1-124-360-00	ELECT 1000MF 20% 16V	
R716	1-249-411-11	CARBON 330 5% 1/4W		C1523	1-136-177-00	FILM 1MF 5% 50V	
	1-249-417-11	CARBON 1K 5% 1/4W	(KV-27V10/27V15/29V10C/29V10M)	C1524	1-124-927-11	ELECT 4.7MF 20% 50V	
			(KV-32V15)	C1529	1-124-907-11	ELECT 10MF 20% 50V	
R717	1-249-393-11	CARBON 10 5% 1/4W		C1530	1-124-907-11	ELECT 10MF 20% 50V	
R718	1-249-413-11	CARBON 470 5% 1/4W	(KV-32V15)	C1532	1-124-927-11	ELECT 4.7MF 20% 50V	
R730	1-247-758-11	CARBON 3.3K 5% 1/2W		C1533	1-126-233-11	ELECT 22MF 20% 25V	
R731	1-247-807-31	CARBON 100 5% 1/4W		C1542	1-124-477-11	ELECT 47MF 20% 16V	
R732	1-215-924-71	METAL OXIDE 15K 5% 3W	F	C1550	1-136-756-11	FILM 0.24MF 5% 200V	
R734	1-249-425-11	CARBON 4.7K 5% 1/4W		<CONNECTOR>			
R736	1-249-411-11	CARBON 330 5% 1/4W		CN122	1-573-299-21	CONNECTOR, BOARD TO BOARD 10P	
R737	1-249-393-11	CARBON 10 5% 1/4W		CN123	1-573-299-21	CONNECTOR, BOARD TO BOARD 10P	
R750	1-247-758-31	CARBON 3.3K 5% 1/2W		DY-2	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
R751	1-247-807-31	CARBON 100 5% 1/4W		<DIODE>			
R752	1-215-924-71	METAL OXIDE 15K 5% 3W	F	D1501	8-719-911-19	DIODE 1SS119	
R754	1-249-425-11	CARBON 4.7K 5% 1/4W		D1502	8-719-801-35	THYRISTOR SHOR3D42	
R755	1-247-758-11	CARBON 3.3K 5% 1/2W		D1503	8-719-980-78	DIODE ERA83-006	
			(KV-27V10/27V15/29V10C/29V10M)	D1504	8-719-302-43	DIODE EL1Z	
R756	1-249-411-11	CARBON 330 5% 1/4W		D1505	8-719-911-19	DIODE 1SS119	
			(KV-32V15)	D1506	8-719-911-19	DIODE 1SS119	
	1-249-413-11	CARBON 470 5% 1/4W	(KV-27V10/27V15/29V10C/29V10M)	D1507	8-719-911-19	DIODE 1SS119	
R757	1-249-393-11	CARBON 10 5% 1/4W		D1508	8-719-110-17	DIODE RD10ESB2	
R758	1-249-417-11	CARBON 1K 5% 1/4W	F	D1509	8-719-110-17	DIODE RD10ESB2	
			(KV-27V10/27V15/29V10C/29V10M)	D1510	8-719-911-19	DIODE 1SS119	
R770	1-249-433-11	CARBON 22K 5% 1/4W		D1513	8-719-302-43	DIODE EL1Z	
R771	1-249-409-11	CARBON 220 5% 1/4W	F	D1515	8-719-911-19	DIODE 1SS119	
R772	1-249-409-11	CARBON 220 5% 1/4W	F	D1516	8-719-987-87	DIODE ERA85-009	
R773	1-249-409-11	CARBON 220 5% 1/4W	F	D1517	8-719-911-19	DIODE 1SS119	

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KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121
RM-CM101

E (KV-32V15)

D

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<IC>				R1578	1-249-423-11	CARBON 3.3K 5% 1/4W	
IC1501	8-752-052-88	IC CXA1526P		R1582	1-249-411-11	CARBON 330 5% 1/4W	
IC1502	8-759-701-59	IC NJM78M09FA		R1583	1-249-421-11	CARBON 2.2K 5% 1/4W	
IC1504	8-759-135-80	IC UPC358C		R1585	1-249-441-11	CARBON 100K 5% 1/4W	
<COIL>				R1586	1-247-891-00	CARBON 330K 5% 1/4W	
L1502	1-459-592-11	COIL (WITH CORE) (PMC)		*****			
L1504	1-459-474-11	COIL (WITH CORE)		*A-1346-192-A	D BOARD, COMPLETE (KV-27V10/29V10M)		
<TRANSISTOR>				*****			
Q1501	8-729-119-78	TRANSISTOR 2SC2785-HFE		*A-1346-199-A	B BOARD, COMPLETE (KV-29V10C)		
Q1502	8-729-140-96	TRANSISTOR 2SD774-34		*****			
Q1503	8-729-119-76	TRANSISTOR 2SA1175-HFE		*A-1346-200-A	D BOARD, COMPLETE (KV-27V15)		
Q1506	8-729-119-78	TRANSISTOR 2SC2785-HFE		*****			
Q1507	8-729-119-78	TRANSISTOR 2SC2785-HFE		*A-1346-201-A	B BOARD, COMPLETE (KV-32V15)		

Q1508	8-729-140-93	TRANSISTOR 2SB733-34		4-382-854-11	SCREW (M3X10), P, SW (+)		
Q1509	8-729-140-93	TRANSISTOR 2SB733-34		<CAPACITOR>			
Q1511	8-729-119-76	TRANSISTOR 2SA1175-HFE		C501	1-124-557-11	ELECT 1000MF 20% 25V	
Q1514	8-729-209-15	TRANSISTOR 2SD2012		C502	1-162-131-11	CERAMIC 220PF 10% 2KV	
Q1519	8-729-119-78	TRANSISTOR 2SC2785-HFE		C503	1-124-557-11	ELECT 1000MF 20% 25V	
Q1520	8-729-119-78	TRANSISTOR 2SC2785-HFE		C504	1-137-366-11	FILM 0.0022MF 5% 50V	
<RESISTOR>				C505	1-124-916-11	ELECT 22MF 20% 25V	
R1501	1-249-409-11	CARBON 220 5% 1/4W		C506	1-128-560-11	ELECT 22MF 20% 100V	
R1502	1-249-409-11	CARBON 220 5% 1/4W		C507	1-123-947-00	ELECT 10MF 20% 160V	
R1503	1-249-435-11	CARBON 33K 5% 1/4W		C508	1-129-898-00	FILM 0.0022MF 5% 630V	
R1504	1-249-429-11	CARBON 10K 5% 1/4W		(KV-27V10/27V15/29V10C/29V10M)			
R1505	1-249-421-11	CARBON 2.2K 5% 1/4W		C509	1-124-916-11	ELECT 22MF 20% 25V	
R1506	1-249-423-11	CARBON 3.3K 5% 1/4W		C511	1-123-024-21	ELECT 33MF 10% 160V	
R1507	1-249-410-11	CARBON 270 5% 1/4W		C512	1-102-212-00	CERAMIC 820PF 10% 500V	
R1508	1-249-437-11	CARBON 47K 5% 1/4W		C513	1-102-212-00	CERAMIC 820PF 10% 500V	
R1509	1-249-429-11	CARBON 10K 5% 1/4W		C514	1-102-244-00	CERAMIC 220PF 10% 500V	
R1510	1-215-461-00	METAL 47K 1% 1/4W		C515	1-137-416-11	FILM 0.01MF 10% 100V	
R1511	1-216-379-11	METAL OXIDE 6.8 5% 2W F		C517	1-162-116-00	CERAMIC 680PF 10% 2KV	
R1513	1-249-423-11	CARBON 3.3K 5% 1/4W		C518	1-162-116-00	CERAMIC 680PF 10% 2KV	
R1514	1-247-885-00	CARBON 180K 5% 1/4W		C519 Δ	1-104-771-11	FILM 0.02MF 3% 2KV	
R1515	1-215-905-11	METAL OXIDE 10 5% 3W F		C520 Δ	1-162-134-91	CERAMIC 470PF 10% 2KV	
R1519	1-249-417-11	CARBON 1K 5% 1/4W		C521 Δ	1-136-316-51	FILM 0.056MF 5% 630V	
R1520	1-249-417-11	CARBON 1K 5% 1/4W		C522	1-106-383-00	MYLAR 0.047MF 99% 200V	
R1522	1-249-417-11	CARBON 1K 5% 1/4W		C523	1-102-002-00	CERAMIC 680PF 10% 500V	
R1527	1-249-417-11	CARBON 1K 5% 1/4W F		C524	1-102-212-00	CERAMIC 820PF 10% 500V	
R1528	1-249-438-11	CARBON 56K 5% 1/4W		C525	1-124-902-00	ELECT 0.47MF 20% 50V	
R1529	1-249-434-11	CARBON 27K 5% 1/4W		C526	1-106-395-00	MYLAR 0.15MF 10% 200V	
R1530	1-249-432-11	CARBON 18K 5% 1/4W		C527	1-124-341-00	ELECT 1MF 20% 200V	
R1533	1-249-427-11	CARBON 6.8K 5% 1/4W		C528	1-136-113-00	FILM 2MF 5% 200V	
R1534	1-249-424-11	CARBON 3.9K 5% 1/4W		C529	1-137-410-11	FILM 0.001MF 10% 100V	
R1535	1-249-425-11	CARBON 4.7K 5% 1/4W		C530	1-104-844-11	FILM 0.62MF 5% 200V	
R1536	1-215-857-11	METAL OXIDE 10 5% 1W F		C531	1-104-664-11	ELECT 47MF 20% 25V	
R1537	1-249-404-00	CARBON 82 5% 1/4W		C532	1-136-165-00	FILM 0.1MF 5% 50V	
R1538	1-216-379-11	METAL OXIDE 6.8 5% 2W F		C533	1-124-927-11	ELECT 4.7MF 20% 50V	
R1541	1-249-441-11	CARBON 100K 5% 1/4W		C534	1-136-161-00	FILM 0.047MF 5% 50V	
R1543	1-249-414-11	CARBON 560 5% 1/4W		C535	1-126-969-11	ELECT 220MF 20% 50V	
R1546	1-215-885-00	METAL OXIDE 68 5% 2W F		C536	1-137-398-11	FILM 0.068MF 10% 100V	
R1552	1-249-426-11	CARBON 5.6K 5% 1/4W		C537	1-126-964-11	ELECT 10MF 20% 50V	
R1554	1-249-393-11	CARBON 10 5% 1/4W		C538	1-136-161-00	FILM 0.047MF 5% 50V	
R1556	1-249-438-11	CARBON 56K 5% 1/4W		C540	1-137-366-11	FILM 0.0022MF 5% 50V	
R1559	1-249-429-11	CARBON 10K 5% 1/4W		C541	1-137-366-11	FILM 0.0022MF 5% 50V	
R1564	1-249-435-11	CARBON 33K 5% 1/4W		C542	1-130-481-00	FILM 0.0068MF 5% 50V	
R1568	1-247-891-00	CARBON 330K 5% 1/4W		C545	1-124-927-11	ELECT 4.7MF 20% 50V	
R1569	1-249-413-11	CARBON 470 5% 1/4W		C547	1-164-079-11	CERAMIC 330PF 10% 50V	
				C548 Δ	1-162-116-91	CERAMIC 680PF 10% 2KV	
				C550	1-106-387-00	MYLAR 0.068MF 10% 200V	
				C553	1-164-079-11	CERAMIC 330PF 10% 50V	

D

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C561	1-162-815-11	CERAMIC	47PF 5% 500V	C2215	1-136-169-00	FILM	0.22MF 5% 50V
C595	1-123-932-00	ELECT	4.7MF 20% 160V	C2216	1-126-941-11	ELECT	470MF 20% 25V
C598	1-124-342-00	ELECT	3.3MF 20% 160V	C2217	1-136-169-00	FILM	0.22MF 5% 50V
C600	1-126-964-11	ELECT	10MF 20% 50V	C2218	1-124-557-11	ELECT	1000MF 20% 25V
C601	▲ 1-136-311-51	FILM	0.47MF 20% 125V	C2219	1-124-557-11	ELECT	1000MF 20% 25V
	▲ 1-136-511-61	FILM	(KV-27V10/27V15/29V10M/32V15) 0.47MF 20% 300V (KV-29V10C)	C2220	1-124-925-11	ELECT	2.2MF 20% 50V
C602	▲ 1-136-311-51	FILM	0.47MF 20% 125V (KV-27V10/27V15/29V10M/32V15)	<CONNECTOR>			
C603	▲ 1-136-311-51	FILM	0.47MF 20% 125V (KV-27V10/27V15/29V10M/32V15)	CN104	1-573-979-21	CONNECTOR, BOARD TO BOARD 11P	
C604	▲ 1-162-578-81	CERAMIC	0.0047MF 20% 400V	CN107	*1-580-798-11	CONNECTOR PIN (DEFLECTION YOKE) 6P	
C607	1-125-489-00	ELECT	560MF 20% 250V (KV-29V10C)	CN108	1-573-296-21	CONNECTOR, BOARD TO BOARD 10P(KV-32V15)	
	1-125-495-11	ELECT	470MF 20% 200V (KV-27V10/27V15/29V10M/32V15)	CN109	1-573-296-21	CONNECTOR, BOARD TO BOARD 10P(KV-32V15)	
C608	1-125-489-00	ELECT	560MF 20% 250V (KV-29V10C)	CN113	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
	1-125-495-11	ELECT	470MF 20% 200V (KV-27V10/27V15/29V10M/32V15)	CN114	*1-580-843-11	PIN, CONNECTOR (POWER)	
C609	1-136-169-00	FILM	0.22MF 5% 50V	CN115	1-573-298-21	CONNECTOR, BOARD TO BOARD 20P	
C610	1-136-169-00	FILM	0.22MF 5% 50V	CN116	*1-691-915-11	CONNECTOR, BOARD TO BOARD 15P	
C611	1-136-169-00	FILM	0.22MF 5% 50V	CN117	1-573-978-21	CONNECTOR, BOARD TO BOARD 11P	
C612	1-136-169-00	FILM	0.22MF 5% 50V	<DIODE>			
C613	1-164-625-11	CERAMIC	680PF 10% 500V	D501	8-719-028-71	DIODE ES1F-LF-G2	
C614	1-164-625-11	CERAMIC	680PF 10% 500V	D502	8-719-979-85	DIODE EGP20G	
C616	1-126-964-11	ELECT	10MF 20% 50V	D503	8-719-979-85	DIODE EGP20G	
C617	1-126-953-11	ELECT	2200MF 20% 35V	D504	▲ 8-719-302-44	DIODE EL1Z-V1	
C618	1-124-557-11	ELECT	1000MF 20% 25V	D505	8-719-302-43	DIODE EL1Z	
C619	1-126-952-11	ELECT	1000MF 20% 16V	D506	8-719-945-80	DIODE ERC06-15S	
C620	1-164-644-11	CERAMIC	330PF 10% 500V	D507	8-719-945-80	DIODE ERC06-15S	
C621	1-126-356-11	ELECT	220MF 20% 160V	D508	8-719-900-26	DIODE ERD29-08J	
C623	1-162-117-00	CERAMIC	100PF 10% 500V	D509	8-719-302-43	DIODE EL1Z	
C624	1-136-155-00	FILM	0.015MF 5% 50V	D510	8-719-936-82	DIODE GP08DPKG3	
C625	1-129-719-00	FILM	0.027MF 10% 400V	D511	8-719-936-82	DIODE GP08DPKG3	
C626	1-104-665-11	ELECT	100MF 20% 25V	D512	8-719-109-84	DIODE RD5.1ESB1	
C628	1-161-740-00	CERAMIC	470PF 10% 400V (KV-29V10C)	D513	8-719-936-82	DIODE GP08DPKG3	
C629	1-108-700-11	MYLAR	470PF 10% 400V (KV-29V10C)	D514	8-719-911-19	DIODE 1SS119	
C630	1-136-165-00	FILM	0.1MF 5% 50V (KV-29V10C)	D515	8-719-911-19	DIODE 1SS119	
C632	1-126-406-11	ELECT	2.2MF 20% 400V (KV-29V10C)	D601	8-719-911-19	DIODE 1SS119	
C633	1-126-933-11	ELECT	100MF 20% 16V (KV-29V10C)	D602	▲ 8-719-510-63	DIODE D4SB60L-F	
C634	1-165-127-11	CERAMIC	470PF 10% 500V	D603	8-719-500-69	DIODE S3V10SS	
C635	1-124-126-00	ELECT	47MF 20% 16V	D605	8-719-500-69	DIODE S3V10SS	
C636	1-137-374-11	FILM	0.047MF 5% 50V	D607	8-719-510-02	DIODE D1NS4	
C637	1-124-916-11	ELECT	22MF 20% 25V	D608	8-719-510-02	DIODE D1NS4	
C639	1-161-740-00	CERAMIC	470PF 10% 400V (KV-27V10/27V15/29V10M/32V15)	D609	8-719-510-02	DIODE D1NS4	
C641	1-126-933-11	ELECT	100MF 20% 10V	D610	8-719-510-02	DIODE D1NS4	
C642	1-137-217-11	FILM	0.01MF 5% 0	D611	8-719-510-02	DIODE D1NS4	
C643	1-137-218-11	FILM	0.012MF 5% 0	D612	8-719-031-79	DIODE D5SC4M	
C645	1-102-125-00	CERAMIC	0.0047MF 10% 50V	D613	8-719-022-97	DIODE D2S4MF	
C646	1-126-933-11	ELECT	100MF 20% 16V	D614	8-719-110-33	DIODE RD12ESB3	
C647	1-124-916-11	ELECT	22MF 20% 25V	D615	8-719-027-43	DIODE S2L20UF	
C684	1-124-667-11	ELECT	10MF 20% 50V	D616	8-719-027-43	DIODE S2L20UF	
C695	1-126-964-11	ELECT	10MF 20% 50V	D617	8-719-027-43	DIODE S2L20UF	
C2205	1-124-925-11	ELECT	2.2MF 20% 50V	D618	8-719-027-43	DIODE S2L20UF	
C2208	1-124-925-11	ELECT	2.2MF 20% 50V	D619	8-719-510-02	DIODE D1NS4	
C2210	1-104-666-11	ELECT	220MF 20% 25V	D621	8-719-028-72	DIODE RGPO2-17EL-6433 (KV-29V10C)	
C2211	1-104-664-11	ELECT	47MF 20% 25V	D622	8-719-911-19	DIODE 1SS119	
				D623	8-719-911-19	DIODE 1SS119	
				D624	8-719-911-19	DIODE 1SS119	
				D626	8-719-510-48	DIODE D1N20R	
				D627	8-719-510-48	DIODE D1N20R	
				D628	8-719-911-19	DIODE 1SS119	
				D633	8-719-110-09	DIODE RD8.2ESB3	
				D634	8-719-911-19	DIODE 1SS119	
				D635	8-719-911-19	DIODE 1SS119	
				D636	8-719-510-48	DIODE D1N20R	
				D637	8-719-911-19	DIODE 1SS119	
C2212	1-104-666-11	ELECT	220MF 20% 25V				
C2213	1-136-173-00	FILM	0.47MF 5% 50V				

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Ne les remplacer que par une pièce portant le numéro spécifié.


KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y117 RM-Y121 RM-CM101

D

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D638	8-719-911-19	DIODE 1SS119		Q604	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		<FUSE>		Q605	8-729-119-78	TRANSISTOR 2SC2785-HFE	
F601	▲ 1-572-506-51	FUSE 6.3A/250V (KV-29V10C)		Q611	8-729-119-78	TRANSISTOR 2SC2785-HFE	
	▲ 1-576-193-11	FUSE 6.3A/125V		Q613	8-729-924-90	TRANSISTOR 2SB1370-EF	
		(KV-27V10/27V15/29V10M/32V15)		Q614	8-729-119-78	TRANSISTOR 2SC2785-HFE	
	1-533-223-11	CLIP, FUSE; F601		Q2202	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		<FERRITE BEAD>		Q2203	8-729-119-76	TRANSISTOR 2SA1175-HFE	
FB501	1-412-911-11	INDUCTOR, FERRITE BEAD				<RESISTOR>	
FB502	1-412-911-11	INDUCTOR, FERRITE BEAD		JR624	1-216-359-00	METAL OXIDE 6.8 5% 1W F	(KV-29V10C)
FB601	1-412-911-11	INDUCTOR, FERRITE BEAD		R501	1-249-444-11	CARBON 0.56 5% 1/4W F	
FB602	1-412-911-11	INDUCTOR, FERRITE BEAD		R503	1-215-862-11	METAL OXIDE 68 5% 1W	
FB603	1-412-911-11	INDUCTOR, FERRITE BEAD		R504	1-215-872-11	METAL OXIDE 3.3K 5% 1W	
FB604	1-412-911-11	INDUCTOR, FERRITE BEAD		R505	1-249-443-11	CARBON 0.47 5% 1/4W F	
FB605	1-412-911-11	INDUCTOR, FERRITE BEAD		R506	1-215-886-11	METAL OXIDE 100 5% 2W F	
FB606	1-412-911-11	INDUCTOR, FERRITE BEAD		R507	1-249-429-11	CARBON 10K 5% 1/4W	
FB613	1-412-911-11	INDUCTOR, FERRITE BEAD		R508	1-249-425-11	CARBON 4.7K 5% 1/4W	
FB614	1-412-911-11	INDUCTOR, FERRITE BEAD		R509	1-249-389-11	CARBON 4.7 5% 1/4W F	
		<IC>		R511	▲ 1-249-389-11	CARBON 4.7 5% 1/4W F	
IC501	8-759-980-58	IC TDA8172		R512	1-249-389-11	CARBON 4.7 5% 1/4W F	
IC504	8-759-103-93	IC UPC393C		R513	1-216-385-11	METAL OXIDE 0.47 5% 3W F	
IC601	▲ 1-810-051-11	POWER MODULE DM-48		R514	1-249-429-11	CARBON 10K 5% 1/4W	
IC603	8-749-923-94	IC STR81159A (KV-29V10C)		R515	1-216-363-00	METAL OXIDE 0.33 5% 2W F	
IC604	8-759-924-12	IC LM7805CT		R516	1-249-401-11	CARBON 47 5% 1/4W	
IC605	8-759-701-79	IC NJM7812FA		R517	1-215-916-00	METAL OXIDE 680 5% 3W F	
IC606	8-759-701-59	IC NJM78M09FA		R518	1-215-916-00	METAL OXIDE 680 5% 3W F	
IC610	8-759-708-05	IC NJM78L05A		R519	1-249-426-11	CARBON 5.6K 5% 1/4W F	
IC2200	8-759-980-43	IC TDA2009A		R520	1-249-423-11	CARBON 3.3K 5% 1/4W	
		<COIL>		R521	1-249-411-11	CARBON 330 5% 1/4W	
L502	1-421-465-00	COIL, FERRITE CHOKE 68UH		R522	1-215-886-11	METAL OXIDE 100 5% 2W	
L503	1-412-524-11	INDUCTOR 8.2UH		R523	1-215-862-11	METAL OXIDE 68 5% 1W	
L504	1-410-669-31	INDUCTOR 33UH		R524	▲ 1-215-884-11	CARBON 47 5% 2W F	(KV-27V10/27V15/29V10C/29V10M)
L505	1-459-104-00	COIL, WITH CORE		R525	1-215-884-11	METAL OXIDE 47 5% 2W F	(KV-27V10/27V15/29V10C/29V10M)
L506	1-422-613-11	COIL, AIR CORE		R526	1-247-887-00	CARBON 220K 5% 1/4W	
L508	1-412-553-11	INDUCTOR 3.3MMH		R527	1-215-861-00	METAL OXIDE 47 5% 1W F	
L509	▲ 1-460-173-21	COIL, HORIZONTAL LINEARITY		R528	1-247-750-11	CARBON 680 5% 1/2W F	
L510	1-406-607-11	COIL, CHOKE 15MMH		R530	1-215-445-00	METAL 10K 1% 1/4W	
L513	1-412-524-11	INDUCTOR 8.2UH		R531	1-247-903-00	CARBON 1M 5% 1/4W	
		<MODULE>		R532	1-215-446-00	METAL 11K 1% 1/4W	
PM501	▲ 1-810-061-11	PROTECTOR MODULE PM-38		R533	1-249-385-11	CARBON 2.2 5% 1/4W F	
		(KV-27V10/27V15/29V10C/29V10M)		R535	1-216-453-00	METAL OXIDE 270 5% 2W	
PM501	▲ 1-810-061-21	PROTECTOR MODULE PM-39 (KV-32V15)		R536	1-249-389-11	CARBON 4.7 5% 1/4W F	(KV-32V15)
		<IC LINK>		R539	1-215-459-00	METAL 39K 1% 1/4W	
PS2201	▲ 1-532-675-91	LINK, IC 1.5A		R543	1-249-419-11	CARBON 1.5K 5% 1/4W	
		<TRANSISTOR>		R546	1-249-431-11	CARBON 15K 5% 1/4W	
Q502	8-729-119-80	TRANSISTOR 2SC2688-LK		R547	1-247-883-00	CARBON 150K 5% 1/4W	
Q503	8-729-809-29	TRANSISTOR 2SC4159-E		R550	1-215-875-11	METAL OXIDE 10K 5% 1W	
Q505	8-729-119-78	TRANSISTOR 2SC2785-HFE		R551	1-215-875-11	METAL OXIDE 10K 5% 1W F	
Q591	8-729-016-32	TRANSISTOR 2SC4927-01		R554	1-216-371-00	METAL OXIDE 1.5 5% 2W F	
Q601	8-729-019-51	TRANSISTOR 2SC4834MNP		R556	1-249-411-11	CARBON 330 5% 1/4W	
Q602	8-729-019-51	TRANSISTOR 2SC4834MNP		R557	1-249-415-11	CARBON 680 5% 1/4W F	
Q603	8-729-119-76	TRANSISTOR 2SA1175-HFE		R561	1-249-429-11	CARBON 10K 5% 1/4W	
				R562	1-215-437-00	METAL 4.7K 1% 1/4W	
				R563	1-249-429-11	CARBON 10K 5% 1/4W	
				R564	1-249-433-11	CARBON 22K 5% 1/4W	
				R566	1-249-435-11	CARBON 22K 5% 1/4W	
				R580	1-249-411-11	CARBON 330 5% 1/4W	
				R601	▲ 1-202-888-91	SOLID 2.2K 20% 1/2W	
				R602	▲ 1-202-888-91	SOLID 2.2K 20% 1/2W	
						(KV-27V10/27V15/29V10M/32V15)	
				▲ 1-247-289-11	CARBON 8.2K 5% 1W (KV-29V10C)		

• The components identified by **■** in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

D

The components identified by shading and mark  are critical for safety.
Replace only with part number specified.

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

KV-27V10/27V15
RM-Y117 RM-Y121/RM-CM101
KV-29V10C/29V10M/32V15
RM-Y117 RM-Y121 RM-CM101

H L Z (KV-27V15/32V15)

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*1-646-717-11	H BOARD *****	
		<CAPACITOR>	
C1001	1-124-248-00	ELECT 22MF 20% 25V	
C1002	1-126-160-11	ELECT 1MF 20% 50V	
C1003	1-126-160-11	ELECT 1MF 20% 50V	
C1004	1-124-584-00	ELECT 100MF 20% 10V	
C1005	1-164-005-11	CERAMIC CHIP 0.47MF 25V	
		<CONNECTOR>	
CN154	*1-564-520-11	PLUG, CONNECTOR 5P	
CN155	1-564-524-11	PLUG, CONNECTOR 9P	
CN156	*1-564-518-11	PLUG, CONNECTOR 3P	
		<DIODE>	
D1004	1-810-039-31	LED UNIT	
		<IC>	
IC1001	8-741-100-62	IC SBX1618-51	
		<JACK>	
J1001	1-695-585-11	JACK BLOCK, PIN (L TYPE) 3P	
		<TRANSISTOR>	
Q1001	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1002	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1003	8-729-422-27	TRANSISTOR 2SD601A-Q	
		<RESISTOR>	
R1001	1-247-804-11	CARBON 75 5% 1/4W	
R1002	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1003	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R1004	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1005	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R1007	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1008	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1009	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1010	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R1011	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1012	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1014	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R1015	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R1016	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R1017	1-216-105-00	METAL GLAZE 220K 5% 1/10W	
R1018	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R1019	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1021	1-216-045-00	METAL GLAZE 680 5% 1/10W	
		<SWITCH>	
S1001	1-692-431-21	SWITCH, TACTILE	
S1002	1-692-431-21	SWITCH, TACTILE	
S1003	1-692-431-21	SWITCH, TACTILE	
S1004	1-692-431-21	SWITCH, TACTILE	
S1005	1-692-431-21	SWITCH, TACTILE	
S1006	1-692-431-21	SWITCH, TACTILE	

REF.NO.	PART NO.	DESCRIPTION	REMARK
	S1007 Δ 1-692-431-21	SWITCH, TACTILE	

	*1-651-245-11	L BOARD *****	
		<CAPACITOR>	
C1902	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
		<CONNECTOR>	
CN1903	*1-564-518-11	PLUG, CONNECTOR 3P	
		<IC>	
IC1903	8-759-189-86	IC IS455J	
		<RESISTOR>	
R1901	1-216-133-00	METAL GLAZE 3.3M 5% 1/10W	
R1902	1-216-025-00	METAL GLAZE 100 5% 1/10W	

	A-1390-411-A	Z BOARD, COMPLETE (KV-27V15/32V15) *****	
		<CAPACITOR>	
C901	1-124-903-11	ELECT 1MF 20% 50V	
C902	1-124-903-11	ELECT 1MF 20% 50V	
C933	1-126-964-11	ELECT 10MF 20% 50V	
C934	1-126-964-11	ELECT 10MF 20% 50V	
		<CONNECTOR>	
CN901	*1-564-520-11	PLUG, CONNECTOR 5P	
CN905	1-564-517-11	PLUG, CONNECTOR 2P	
		<DIODE>	
D901	8-719-121-24	DIODE RD9.1ESL	
D902	8-719-404-46	DIODE MA110	
D903	8-719-404-46	DIODE MA110	
D904	8-719-109-93	DIODE RD6.2ESB2	
D905	8-719-109-66	DIODE RD3.3ESB2	
D906	8-719-121-24	DIODE RD9.1ESL	
D907	8-719-404-46	DIODE MA110	
D908	8-719-404-46	DIODE MA110	
D909	8-719-404-46	DIODE MA110	
D910	8-719-404-46	DIODE MA110	
D911	8-719-404-46	DIODE MA110	
D912	8-719-404-46	DIODE MA110	
D920	8-719-404-46	DIODE MA110	
		<JACK>	
J901	1-764-873-11	JACK	
J902	1-764-874-11	JACK	
		<TRANSISTOR>	
Q901	8-729-422-27	TRANSISTOR 2SD601A-Q	

Z (KV-27V15/32V15)

UA

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q902	8-729-216-22	TRANSISTOR 2SA1162-G	
Q903	8-729-216-22	TRANSISTOR 2SA1162-G	
Q904	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q905	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q906	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q907	8-729-216-22	TRANSISTOR 2SA1162-G	
Q908	8-729-216-22	TRANSISTOR 2SA1162-G	
Q909	8-729-216-22	TRANSISTOR 2SA1162-G	
Q910	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q911	8-729-140-93	TRANSISTOR 2SB733-34	
Q912	8-729-216-22	TRANSISTOR 2SA1162-G	
<RESISTOR>			
JR901	1-216-295-00	METAL GLAZE 0 5%	1/10W
JR902	1-216-295-00	METAL GLAZE 0 5%	1/10W
JR903	1-216-295-00	METAL GLAZE 0 5%	1/10W
JR907	1-216-295-00	METAL GLAZE 0 5%	1/10W
R901	1-249-405-11	CARBON 100 5%	1/4W F
R902	1-216-033-00	METAL GLAZE 220 5%	1/10W
R903	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R904	1-216-105-00	METAL GLAZE 220K 5%	1/10W
R905	1-216-105-00	METAL GLAZE 220K 5%	1/10W
R906	1-216-089-91	METAL GLAZE 47K 5%	1/10W
R907	1-216-089-91	METAL GLAZE 47K 5%	1/10W
R908	1-216-005-00	METAL GLAZE 15 5%	1/10W
R909	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R910	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R911	1-216-105-00	METAL GLAZE 220K 5%	1/10W
R912	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R913	1-216-101-00	METAL GLAZE 150K 5%	1/10W
R914	1-216-089-91	METAL GLAZE 47K 5%	1/10W
R915	1-216-089-91	METAL GLAZE 47K 5%	1/10W
R916	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R917	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R918	1-216-105-00	METAL GLAZE 220K 5%	1/10W
R919	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R921	1-216-089-91	METAL GLAZE 47K 5%	1/10W
R922	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R923	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R924	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R925	1-216-041-00	METAL GLAZE 470 5%	1/10W
R926	1-216-025-00	METAL GLAZE 100 5%	1/10W
R927	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R928	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R929	1-249-405-11	CARBON 100 5%	1/4W F
R935	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R936	1-216-089-91	METAL GLAZE 47K 5%	1/10W

*A-1394-527-A	UA BOARD, COMPLETE (KV-27V15)		
*A-1394-529-A	UA BOARD, COMPLETE (KV-32V15)		
*A-1394-552-A	UA BOARD, COMPLETE		

(KV-27V10/29V10C/29V10M)			
<CAPACITOR>			
C401	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C402	1-124-916-11	ELECT 22MF	20% 25V
C405	1-124-916-11	ELECT 22MF	20% 25V
C406	1-124-903-11	ELECT 1MF	20% 50V
C407	1-124-903-11	ELECT 1MF	20% 50V

REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
	C408	1-124-916-11	ELECT	22MF 20% 25V
	C409	1-124-903-11	ELECT	1MF 20% 50V
	C410	1-124-903-11	ELECT	1MF 20% 50V
	C411	1-104-665-11	ELECT	100MF 20% 50V
				(KV-27V10/29V10C/29V10M)
	C412	1-124-916-11	ELECT	22MF 20% 25V
	C413	1-126-964-11	ELECT	10MF 20% 50V
	C414	1-124-499-11	ELECT	1MF 20% 50V
	C415	1-124-499-11	ELECT	1MF 20% 50V
	C416	1-126-964-11	ELECT	10MF 20% 50V
	C417	1-124-902-00	ELECT	0.47MF 20% 50V
	C418	1-124-902-00	ELECT	0.47MF 20% 50V
	C419	1-124-126-00	ELECT	47MF 20% 16V
	C420	1-163-031-11	CERAMIC CHIP	0.01MF 50V
	C421	1-124-902-00	ELECT	0.47MF 20% 50V
				(KV-27V10/29V10C/29V10M)
		1-124-916-11	ELECT	22MF 20% 25V
				(KV-27V15/32V15)
	C430	1-124-499-11	ELECT	1MF 20% 50V
				(KV-32V15)
	C431	1-124-499-11	ELECT	1MF 20% 50V
				(KV-32V15)
	C432	1-124-916-11	ELECT	22MF 20% 25V
				(KV-32V15)
	C433	1-104-663-11	ELECT	33MF 20% 25V
				(KV-27V15/32V15)
	C434	1-163-117-00	CERAMIC CHIP	100PF 5% 50V
				(KV-27V15/32V15)
	C441	1-124-126-00	ELECT	47MF 20% 16V
	C442	1-163-117-00	CERAMIC CHIP	100PF 5% 50V
				(KV-27V15/32V15)
	C462	1-126-933-11	ELECT	100MF 20% 16V
				(KV-27V15/32V15)
			<FILTER>	
	CM401	1-467-554-11	FILTER BLOCK, COMB	
			<CONNECTOR>	
	CN141	*1-564-520-11	PLUG, CONNECTOR 5P	
	CN142	1-564-517-11	PLUG, CONNECTOR 2P	(KV-27V15/32V15)
	CN143	1-750-395-11	SOCKET, CONNECTOR 32P	
	CN144	*1-564-521-11	PLUG, CONNECTOR 6P	(KV-32V15)
	CN146	1-573-300-21	CONNECTOR, BOARD TO BOARD 18P	
				(KV-27V15/32V15)
	CN147	1-750-395-11	SOCKET, CONNECTOR 32P	
	CN148	1-564-517-11	PLUG, CONNECTOR 2P	
	CN149	*1-564-519-11	PLUG, CONNECTOR 4P	(KV-32V15)
			<DIODE>	
	D401	8-719-110-17	DIODE RD10ESB2	
	D402	8-719-110-17	DIODE RD10ESB2	
	D403	8-719-110-17	DIODE RD10ESB2	
	D404	8-719-110-17	DIODE RD10ESB2	
	D405	8-719-110-17	DIODE RD10ESB2	
	D408	8-719-110-17	DIODE RD10ESB2	
	D409	8-719-110-17	DIODE RD10ESB2	
	D410	8-719-110-17	DIODE RD10ESB2	
	D411	8-719-110-17	DIODE RD10ESB2	
	D429	8-719-110-17	DIODE RD10ESB2	
	D430	8-719-110-17	DIODE RD10ESB2	
	D431	8-719-110-17	DIODE RD10ESB2	

UA

REF.NO.	PART NO.	DESCRIPTION	REMARK
D436	8-719-110-17	DIODE RD10ESB2 (KV-27V15/32V15)	
D437	8-719-110-17	DIODE RD10ESB2 (KV-27V15/32V15)	
<IC>			
IC401	8-759-637-10	IC M52470AP (KV-27V10/29V10C/29V10M)	
IC402	8-752-067-28	IC CXA1545AS (KV-27V15/32V15)	
IC403	8-759-088-00	IC MM1114XFF (KV-27V10/29V10C/29V10M)	
IC404	8-759-164-18	IC MM1118XFF (KV-27V10/20V10C/29V10M)	
<JACK>			
J401	1-750-515-11	TERMINAL BLOCK, S 3P	
J402	1-750-517-11	JACK BLOCK, PIN 3P	
J404	1-750-516-11	JACK BLOCK, PIN 2P	
<COIL>			
L401	1-410-473-11	INDUCTOR 18UH (KV-27V15/32V15)	
L403	1-410-476-11	INDUCTOR 33UH (KV-27V15/32V15)	
L404	1-410-669-31	INDUCTOR 33UH (KV-27V15/32V15)	
<TRANSISTOR>			
Q401	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q405	8-729-216-22	TRANSISTOR 2SA1162-G	
Q406	8-729-216-22	TRANSISTOR 2SA1162-G	
Q410	8-729-422-27	TRANSISTOR 2SD601A-Q (KV-32V15)	
Q415	8-729-422-27	TRANSISTOR 2SD601A-Q (KV-32V15)	
Q416	8-729-216-22	TRANSISTOR 2SA1162-G (KV-32V15)	
Q417	8-729-216-22	TRANSISTOR 2SA1162-G (KV-32V15)	
Q418	8-729-216-22	TRANSISTOR 2SA1162-G (KV-32V15)	
<RESISTOR>			
JR402	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR408	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR409	1-216-295-00	METAL GLAZE 0 5% 1/10W	
		(KV-27V10/29V10C/29V10M)	
JR410	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR411	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR412	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR415	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR416	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR418	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR419	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR422	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR423	1-216-295-00	METAL GLAZE 0 5% 1/10W	
		(KV-27V10/29V10C/29V10M)	
JR424	1-216-295-00	METAL GLAZE 0 5% 1/10W	
		(KV-27V10/29V10C/29V10M)	
JR428	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR429	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR430	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR431	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR434	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR435	1-216-295-00	METAL GLAZE 0 5% 1/10W	
		(KV-27V10/29V10C/29V10M)	
JR498	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR499	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR901	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JW454	1-249-429-11	CARBON 10K 5% 1/4W	
		(KV-27V10/29V10C/29V10M)	
JW456	1-249-429-11	CARBON 10K 5% 1/4W	
		(KV-27V10/29V10C/29V10M)	

REF.NO.	PART NO.	DESCRIPTION	REMARK
R401	1-247-804-11	CARBON 75 5% 1/4W	
R402	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R403	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R404	1-247-804-11	CARBON 75 5% 1/4W	
R405	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R406	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R407	1-247-804-11	CARBON 75 5% 1/4W	
R408	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R409	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R410	1-249-425-11	CARBON 4.7K 5% 1/4W	
R411	1-249-425-11	CARBON 4.7K 5% 1/4W	
R412	1-249-425-11	CARBON 4.7K 5% 1/4W	
R413	1-249-425-11	CARBON 4.7K 5% 1/4W	
R414	1-247-804-11	CARBON 75 5% 1/4W	
R415	1-249-425-11	CARBON 4.7K 5% 1/4W	
R416	1-216-647-11	METAL CHIP 680 0.50% 1/10W	
R417	1-216-645-11	METAL CHIP 560 0.50% 1/10W	
R418	1-216-025-00	METAL GLAZE 100 5% 1/10W	
		(KV-27V10/29V10C/29V10M)	
R421	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R425	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R431	1-216-045-00	METAL GLAZE 680 5% 1/10W	
		(KV-27V10/29V10C/29V10M)	
	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
		(KV-27V15/32V15)	
R432	1-216-045-00	METAL GLAZE 680 5% 1/10W	
		(KV-27V10/29V10C/29V10M)	
	1-216-295-00	METAL GLAZE 0 5% 1/10W	
		(KV-27V15/32V15)	
R434	1-216-045-00	METAL GLAZE 680 5% 1/10W	
		(KV-27V10/29V10C/29V10M)	
	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
		(KV-27V15/32V15)	
R435	1-216-045-00	METAL GLAZE 680 5% 1/10W	
		(KV-27V10/29V10C/29V10M)	
	1-216-295-00	METAL GLAZE 0 5% 1/10W	
		(KV-27V15/32V15)	
R439	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R440	1-216-025-00	METAL GLAZE 100 5% 1/10W	
		(KV-27V10/29V10C/29V10M)	
R441	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R442	1-216-025-00	METAL GLAZE 100 5% 1/10W	
		(KV-27V10/29V10C/29V10M)	
R443	1-216-025-00	METAL GLAZE 100 5% 1/10W	
		(KV-27V10/29V10C/29V10M)	
R444	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R445	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
		(KV-27V15/32V15)	
R446	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
		(KV-27V15/32V15)	
R450	1-216-025-00	METAL GLAZE 100 5% 1/10W	
		(KV-27V10/29V10C/29V10M)	
	1-216-643-11	METAL CHIP 470 0.50% 1/10W	
		(KV-27V15/32V15)	
R451	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
		(KV-27V15/32V15)	
R452	1-216-025-00	METAL GLAZE 100 5% 1/10W	
		(KV-32V15)	
R453	1-216-645-11	METAL CHIP 560 0.50% 1/10W	
		(KV-32V15)	
	1-216-653-11	METAL CHIP 1.2K 0.50% 1/10W	
		(KV-27V10/29V10C/29V10M)	
R454	1-216-025-00	METAL GLAZE 100 5% 1/10W	
		(KV-27V10/29V10C/29V10M)	

UA

Les composants identifiés par
une trame et une marque Δ
sont critiques pour la sécurité.
Ne les remplacer que par une
pièce portant le numéro spécifique.

The components identified by
shading and mark Δ are critical
for safety.
Replace only with part number
specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK
	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-27V15/32V15)	
R456	1-216-041-00	METAL GLAZE 470 5% 1/10W (KV-27V15/32V15)	
R457	1-216-033-00	METAL GLAZE 220 5% 1/10W (KV-27V15/32V15)	
R458	1-216-033-00	METAL GLAZE 220 5% 1/10W (KV-27V15/32V15)	
R459	1-216-081-00	METAL GLAZE 22K 5% 1/10W (KV-32V15)	
R460	1-216-037-00	METAL GLAZE 330 5% 1/10W (KV-32V15)	
R461	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W (KV-32V15)	
R462	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W (KV-32V15)	
R463	1-216-045-00	METAL GLAZE 680 5% 1/10W (KV-32V15)	
R464	1-216-045-00	METAL GLAZE 680 5% 1/10W (KV-32V15)	
R476	1-216-081-00	METAL GLAZE 22K 5% 1/10W (KV-32V15)	
R478	1-216-041-00	METAL GLAZE 470 5% 1/10W (KV-27V15/32V15)	
R479	1-216-081-00	METAL GLAZE 22K 5% 1/10W (KV-32V15)	
R480	1-216-081-00	METAL GLAZE 22K 5% 1/10W (KV-32V15)	
R481	1-216-081-00	METAL GLAZE 22K 5% 1/10W (KV-32V15)	
R482	1-249-417-11	CARBON 1K 5% 1/4W	
R483	1-249-417-11	CARBON 1K 5% 1/4W	
R488	1-216-081-00	METAL GLAZE 22K 5% 1/10W (KV-32V15)	
R489	1-216-081-00	METAL GLAZE 22K 5% 1/10W (KV-32V15)	
R490	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R491	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R492	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R1438	1-216-081-00	METAL GLAZE 22K 5% 1/10W (KV-27V15/32V15)	

MISCELLANEOUS

Δ 1-402-952-12	COIL, DEMAGNETIZATION (KV-32V15)
Δ 1-406-726-22	COIL, DEMAGNETIZATION (KV-27V10/27V15/29V10M)
Δ 1-406-726-41	COIL, DEMAGNETIZATION (KV-29V10C)
1-417-178-11	SELECTOR, ANTENNA (AS-2) (KV-32V15)
1-504-524-11	SPEAKER (8CM)
1-569-007-11	ADAPTER, CONVERSION 2P (KV-29V10C)
1-573-657-11	PLAUG, F-PIN (KV-27V10/27V15/29V10C/29V10M)
Δ 1-751-056-11	CORD, POWER (WITH CONNECTOR) 6A/250V (KV-29V10C)
Δ 1-751-059-11	CORD, POWER (WITH CONNECTOR) 10A/125V (KV-27V10/27V15/29V10M/32V15)
*1-751-135-11	CABLE, PIN (KV-32V15)
*1-751-136-11	CABLE, PIN (KV-32V15)
Δ 8-451-275-42	DEFLECTION YOKE Y28PFA(VTM) (KV-27V10/27V15/29V10C/29V10M)
Δ 8-451-315-41	DEFLECTION YOKE Y34FXA(VTM) (KV-32V15)

REF. NO.	PART NO.	DESCRIPTION	REMARK
V901	Δ 8-733-723-05	PICTURE TUBE (A80JYV50X) (KV-32V15)	
	Δ 8-733-848-05	PICTURE TUBE (A68KZJ50X) (KV-27V10/27V15/29V10C/29V10M)	

ACCESSORIES AND PACKING MATERIALS

1-467-626-11	MOUSE, INTERIJEENT CABLE (RM-CM101) (KV-27V15/32V15)
1-569-007-11	ADAPTER, CONVERSION 2P (KV-29V10C)
3-758-286-21	MANUAL, INSTRUCTION (ENGLISH) (KV-27V10/29V10M)
3-758-286-31	MANUAL, INSTRUCTION (FRENCH) (KV-27V10(CND))
3-758-286-41	MANUAL, INSTRUCTION (SPANISH) (KV-29V10M)
3-758-287-21	MANUAL, INSTRUCTION, CABLE MOUSE (KV-27V15/32V15)
3-758-287-31	MANUAL, INSTRUCTION, CABLE MOUSE (KV-27V15(CND)/32V15(CND))
3-758-287-41	MANUAL, INSTRUCTION, CABLE MOUSE (KV-27V15(US)/32V15(US))
3-758-289-21	MANUAL, INSTRUCTION (ENGLISH) (KV-27V15/32V15)
3-758-289-31	MANUAL, INSTRUCTION (FRENCH) (KV-27V15(CND)/32V15(CND))
3-758-289-41	MANUAL, INSTRUCTION (SPANISH) (KV-27V15(US)/32V15(US))
3-758-336-41	MANUAL, INSTRUCTION (KV-29V10C)
3-758-336-51	MANUAL, INSTRUCTION (KV-29V10C)
4-043-736-01	FILTER, MOUSE (KV-27V15/32V15)
4-043-737-01	HOLDER, FILTER (KV-27V15/32V15)
*4-041-255-01	BAG, PROTECTION (KV-27V10/27V15/29V10C/29V10M)
*4-041-259-01	BAG, PROTECTION (KV-32V15)
*4-043-483-01	INDIVIDUAL CARTON (KV-27V10/27V15/29V10C/29V10M)
*4-043-484-01	CUSHION (UPPER) (ASSY) (KV-27V10/27V15/29V10C/29V10M)
*4-043-485-01	CUSHION (LOWER) (ASSY) (KV-27V10/27V15/29V10C/29V10M)
*4-043-597-01	CUSHION (UPPER) (ASSY) (KV-32V15)
*4-043-598-01	CUSHION (LOWER) (ASSY) (KV-32V15)
*4-043-599-01	INDIVIDUAL CARTON (KV-32V15)

REMOTE COMMANDER

1-467-060-13	REMOTE COMMANDER (RM-Y117) (KV-27V10/29V10C/29V10M)
9-903-826-01	COVER, BATTERY (FOR RM-Y117) (KV-27V10/29V10C/29V10M)
1-467-621-11	REMOTE COMMANDER (RM-Y121) (KV-27V15/32V15)
9-907-089-01	COVER, BATTERY (FOR RM-Y121) (KV-27V15/32V15)